Mycenaean Messenia and the Kingdom of Pylos

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by Richard Hope Simpson



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Dedicated to my wife, Waveney Jennifer Hope Simpson

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Preface and Acknowledgments

I was introduced to the study of Prehistoric Greece by Dorothea Gray, my tutor from 1954 to 1955 for the Diploma in Classical Archaeology at Oxford. From 1956 to 1958, as School Student of the British School at Athens, I continued the survey of Prehistoric Laconia, begun by Lady Helen Waterhouse (née Thomas) from 1936 to 1938. I have traveled throughout the Peloponnese, central Greece, and the islands, mainly during the years 1956-1979. In 1958, together with Dorothea Gray and my wife Jennifer, I spent five weeks in central Greece, both visiting known prehistoric sites and discovering "new" sites. In 1958 and 1959, my wife and I examined many sites in the Peloponnese, with the same objectives and some further positive results. From spring 1958 to summer 1961, I collaborated with John Lazenby in the investigation of the topography of Mycenaean Greece in relation to the Homeric Catalogue of the Ships (the subject of my Ph.D. thesis for the University of London in 1962 and of our subsequent book). In 1960 we also began an extensive survey of the Dodecanese islands, which was completed in 1970.

My interest in Messenia began in 1957, with an initial exploration of the sites around the Messenian Gulf, particularly in the northern Mani, in an attempt to identify the Seven Cities offered by Agamemnon to Achilles in the Iliad. In autumn 1958, William A. McDonald kindly agreed to accept me as his collaborator in the survey he had begun in Messenia. This survey had been inspired both by the discovery of the Palace of Nestor at Pylos and its inscriptions in the Linear B script by Carl Blegen and his team (including McDonald), and by the decipherment of the script by Michael Ventris. Our collaboration began in spring 1959 with the investigation of selected areas, mainly in the Pylos district, and was specifically aimed at the discovery of prehistoric sites, especially the Mycenaean ones (Messenia I). In 1962 the size and scope of the venture was expanded to include work by specialists in other disciplines (mainly earth sciences), mostly from the staff of the University of Minnesota. From these beginnings the University of Minnesota Messenia Expedition (UMME) was formed (Messenia II; cf. Ch. 1, below).

In this present study, however, I return to one of the main original objectives of our survey, namely the quest for the locations of the place names recorded in the Linear B inscriptions found in the Palace of Nestor. For this inquiry the main sources of evidence are the data concerning the Mycenaean settlements in the region and the contents of the inscriptions themselves. I have here attempted (as have many other scholars) to assess and to correlate these two sources of evidence, in order to identify the locations of the main districts named in the Pylos inscriptions. The conclusions I have drawn are not only in accord with John Chadwick's theories, but they are also consistent with recent archaeological discoveries in Messenia, in particular the excavations at Traganes by the Iklaina Archaeological Project (IKAP) under Michael B. Cosmopoulos, and the putative cothon harbor at Romanou discovered by the Pylos Regional Archaeological Project (PRAP), together with the evidence, revealed by their intensive surface survey, for an exceptionally large (and contemporary) "Lower Town" around the Palace of Nestor. It has, however, proved impossible for me, as a layman, to take into account all of the very many relevant publications by experts in Linear B studies. I am obliged to the two anonymous reviewers, who have kindly supplied references to some of the more recent literature.

I am indebted to many colleagues and others for assistance or encouragement at various stages of my research in Greece, and particularly to Bill McDonald and to all my other fellow workers in the University of Minnesota Messenia Expedition and the Nichoria excavations (the latter are named in *Nichoria* I, xxvii–xxviii). I thank especially the following: Stanley E. Aschenbrenner, Paul Åström, John Bennet, Philip P. Betancourt, Duane Bingham, Carl W. Blegen, Bryan Carlson, Hector W. Catling, John Chadwick, John F. Cherry, William D.E. Coulson, Michael B. Cosmopoulos, Jack L. Davis, Oliver T.P.K. Dickinson, Jesse E. Fant, John M. Fossey, David H. French, Dorothea H.F. Gray, Dietmar K. Hagel, W. Jennifer

Hope Simpson, Roger J. Howell, Helen Hughes-Brock, Zhichun Jing, Jost Knauss, George S. Korres, John F. Lazenby and Elizabeth Lazenby, Yannos G. Lolos, William G. Loy, Frederick E. Lukermann, Suzanne Martin, Frederick R. Matson, William A. McDonald, Christopher B. Mee, Jennifer Moody, Penelope A. Mountjoy, Robert Noves, Thomas G. Palaima, George R. Rapp, Joseph W. Shaw and Maria Shaw, C. Thomas Shay and Jennifer M. Shay, Cynthia W. Shelmerdine, Richard A. Tomlinson, Peter Topping, Alan J.B. Wace, Kenneth A. Wardle, Peter M. Warren, Lady Helen Waterhouse, L. Vance Watrous, Veronica E.S. Webb, Malcolm H. Wiener, Nancy C. Wilkie, Frederick E. Winter, Herbert E. Wright, Nikolaos Yalouris, and Eberhard Zangger. I thank also the anonymous reviewers, some of whose suggestions I have been able to incorporate.

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The maps were drawn by Jennifer Grek Martin; the plates were arranged by Gregory McQuat. Preparation of the illustrations was supervised by Gerald Barber of the Department of Geography, Queen's University at Kingston. I am most grateful also to Terry M. Smith, the administrative assistant of the Department of Classics, and to Erin Gunsinger, the secretary, for special assistance, and to Sharon Mohammed in the Department of Geography, for typing my manuscript. I am deeply indebted to Philip Betancourt, for all his help with the publication, and to Susan Ferrence and Sarah Peterson of the INSTAP Academic Press for their guidance and supervision. My manuscript was essentially completed in early 2010, but other commitments, together with my age and physical condition, have delayed its production.

List of Abbreviations

References

References			Southwestern Peloponnese: 1964–1968,"
AR	Archaeological Reports (supplement to JHS)	MG	AJA 73, pp. 123–177. Hope Simpson, R. 1981. Mycenaean
Docs ²	Ventris, M., and J. Chadwick. 1973. <i>Documents in Mycenaean Greek</i> , 2nd ed., Cambridge.	MME	Greece, Park Ridge, NJ. McDonald, W.A., and G.R. Rapp, eds. 1972. The Minnesota Messenia Expedi-
GAC	Hope Simpson, R., and O.T.P.K. Dickinson. 1979. A Gazetteer of Aegean Ci-		tion: Reconstructing a Bronze Age Regional Environment, Minneapolis.
	vilisation in the Bronze Age, Vol. 1: The Mainland and Islands (SIMA 52), Göteborg.	Nichoria I	Rapp, G.R., and S.E. Aschenbrenner, eds. 1978. Excavations at Nichoria in Southwest Greece I: Site, Environs and
Messenia I	McDonald, W.A., and R. Hope Simpson. 1961. "Prehistoric Habitation in Southwestern Peloponnese," <i>AJA</i> 65, pp. 221–260.	Nichoria II	Techniques, Minneapolis. McDonald, W.A., and N.C. Wilkie, eds. 1992. Excavations at Nichoria in Southwest Greece II: The Bronze Age Occupa-
Messenia II	McDonald, W.A., and R. Hope Simpson.	Nichoria III	tion, Minneapolis.
	1964. "Further Exploration in Southwestern Peloponnese: 1962–1963," <i>AJA</i> 68, pp. 229–245.		McDonald, W.A., W.D.E. Coulson, and J. Rosser, eds. 1983. Excavations at Nichoria in Southwest Greece III: Dark Age
Messenia III	McDonald, W.A., and R. Hope Simp-		and Byzantine Occupation, Minneapolis.

son. 1969. "Further Explorations in

Archaeological Periods

Α Archaic BA Bronze Age C Classical DA Dark Age EΗ Early Helladic EIA Early Iron Age Geometric G Η Hellenistic LBA Late Bronze Age

LH Late Helladic (Mycenaean)

M Medieval
MH Middle Helladic
N Neolithic
R Roman

Measurements

ca. approximately diam. diameter

ha hectare (10,000 m²)

km kilometer m meter

Register of Mycenaean Sites in Messenia (Table 2)

CEM Mycenaean grave(s), cemetery
ChT Mycenaean chamber tomb(s)
HAB Mycenaean settlement
tholos (tholoi) Mycenaean tholos tomb(s)

Miscellaneous

EAY Greek Archaeological Service (Elli-

niki Archaiologiki Yperesia)

FP Further Province

GPS Global Positioning System

HP Hither Province

IKAP Iklaina Archaeological Project
MARWP Minnesota Archaeological Research

in the Western Peloponnese

PRAP Pylos Regional Archaeological

Project

UMME University of Minnesota Messenia

Expedition

Introduction

The aims of this study are to outline the state of our present knowledge concerning the Mycenaean settlements in Messenia, and to examine the evidence for reconstructing the political geography of the "Kingdom" of Pylos. Chapter 1 reviews the progress of archaeological exploration in Messenia relating to the Mycenaean (Late Helladic [LH]) period. Chapter 2 summarizes the data from excavations and surveys concerning the Mycenaean settlements in Messenia. Chapter 3 attempts to determine the extent of the "Kingdom," and to identify the locations of its main districts by correlating the archaeological data from the Mycenaean sites with the indications provided by the inscriptions in Linear B found in the "Palace of Nestor" at Ano Englianos.

The perspective of this study is that of a field archaeologist dependent on the work of philologists for the transliteration of, and the interpretations of, the Linear B inscriptions. Nevertheless, the author has spent a large part of two decades (1955–1975) on fieldwork in Messenia, and from 1959 onward collaborated with William A. McDonald in the University of Minnesota Messenia

Expedition (UMME; see Ch. 1). During the period of the UMME archaeological survey (1959–1968), he was present at the investigations of nearly all of the prehistoric sites discovered by UMME, and consequently visited almost every district of Messenia.

Since 1968 our understanding of Mycenaean civilization in western Messenia has been greatly increased, first by the work of George S. Korres (University of Athens), and more recently by that of the Pylos Regional Archaeological Project (PRAP) under Jack L. Davis and that of the Iklaina Archaeological Project (IKAP) under Michael B. Cosmopoulos. In eastern Messenia the work (mainly "rescue" excavations) of the Greek Archaeological Service (Elliniki Archaiologiki Yperesia [EAY]) has provided much new information, while at the same time further demonstrating the need for much more exploration.

In the attempt to identify the locations of the main districts of the Kingdom (see Ch. 3), it has not been possible to take into account, or even to cite, all of the numerous relevant comments and theories of the experts in Linear B studies. But

most of the pertinent suggestions made by John Chadwick are adopted here, and several of those made by Cynthia W. Shelmerdine and John Bennet (although some major disagreements are also expressed). The author fully realizes the controversial nature of any attempt to identify the locations of the districts. He maintains, however, that this inquiry should include full consideration of the data concerning all of the Mycenaean sites known in Messenia, while at the same time following the most plausible interpretations of the contents of the *Pylos* tablets. The system developed by the rulers of Pylos for the organization of their "Kingdom" appears to have been essentially simple, and largely

based on the locations of the populated districts. A simple and geographical ordering of these districts is therefore indicated, as it is demonstrated in the detailed arguments presented below for identifying their locations. It should, however, be realized that the program of Chapter 3 is of limited scope. Both the detailed arguments and the partial explanations concerning the Linear B documents involved are directed toward establishing the probable locations of the main districts in the "Kingdom." No attempt is made here to offer a full explanation of the operations of the Pylos palace or the organization of its realm. The author does not claim to be qualified to provide such a thorough overview.

Chronology

The provisional list of approximate calendar dates below (Table 1) combines those of the Provisional Chronological Table for the Greek Late Bronze Age (LBA) proposed by Richard Hope Simpson and Dietmar K. Hagel (Hope Simpson and Hagel 2006, 17–22) with those for the "Dark Age" (DA) in Messenia proposed by William D.E. Coulson (Coulson 1986, 9–11, 18–21). The

provisional list also incorporates the phase termed "Transitional LH IIIB2 to IIIC Early" by Penelope A. Mountjoy, who assigns the destruction of the Palace of Nestor at Pylos to this phase (Mountjoy 1997; cf. Mountjoy 1999a, 1999b). Jeremy B. Rutter, however, finds this term "potentially misleading" (Rutter 2003, 194), and both he and Salvatore Vitale (2006) maintain that the deposits attributed

Relative Time Periods	Years B.C.
LHI	1600–1500
LH IIA	1500–1460
LH IIB	1460–1420
LH IIIA1	1420–1380
LH IIIA2	1380–1310
LH IIIB1	1310–1240
LH IIIB2	1240–1210
Transitional LH IIIB2 to LH IIIC Early	1210–1190
LH IIIC Early	1190–1140
LH IIIC Middle	1140–1090
LH IIIC Late	1090–1050
DA I	1050–975
DA II	975–850
DA II/III	850–800
DA III	800–750

Table 1. Provisional list of approximate calendar dates (B.C.) for the Late Helladic (LH) and Dark Age (DA) periods in Messenia.

by Mountjoy to this "Transitional" phase should instead be assigned (individually, case by case) to either "LH IIIB2 Late" (as defined by Vitale) or to LH IIIC Phase 1 (as first proposed in Rutter 1977). It is, however, indeed often difficult to assign individual pieces of Mycenaean pottery found in Messenia to any particular subperiod (cf., e.g., Davis et al. 1997 and *Nichoria* II). In general, both the "provincial" nature of Mycenaean pottery in Messenia and the provisional nature of the list of calendar dates (Table 1) should be emphasized.

Little Early Iron Age (EIA) pottery has been found in Messenia, and the only stratified sequence is that of Nichoria, on which Coulson's scheme for the "Dark Age" in Messenia is based (Coulson 1983, 1986). As he observed, "the establishment of an absolute chronology is a great deal more difficult" (Coulson 1986, 9–11). It is indeed difficult to correlate the typology and the chronology of the EIA pottery of Messenia with those of the northeast

Peloponnese and central Greece, especially for the period of transition from LH IIIC Late to the EIA. The problems are outlined in Oliver Dickinson's recent discussion (Dickinson 2006, 10–23).

Additional Conventions for Mycenaean Material

LH I/II = early LH, but not closely assigned to either LH I or LH II

LH IIIA-B = both LH IIIA and LH IIIB (similarly LH IIIA2-B, etc.)

LH III(A-B) = within the LH IIIA-B range (similarly LH III[A2-B], etc.)

LH I–IIIB (or similar) = of the whole LH I–IIIB (or similar) range

Illustrations

Maps 1–6 are adapted from those compiled by the author for *Messenia* III. Although many corrections have been made, the locations are only approximately shown, and only a few modern features (e.g., villages, roads, railways) are included. The photographs (Pls. 1A–7C) were all taken by the author, from 1956 to 1968.

Conventions Used for Mycenaean Sites

The name of the village or town to which the site belongs is given first, followed by the modern toponym for the site, and after this by the site number

(as on the map concerned) in parentheses, e.g., Kambos: Zarnata (81) (as also in the "Register of Mycenaean sites in Messenia," Ch. 2, Table 2).

The History of Exploration

Early Investigations in Messenia

Modern interest in the archaeology of Messenia began with descriptions of ancient remains (e.g., of Messene) by early 19th-century travelers (e.g., Pouqueville, Dodwell, and Gell) following in the footsteps of the ancient writers, particularly Strabo and Pausanias. The only serious fieldwork undertaken at the time was that of the *Expedition Scientifique de Morée* (Bory de Saint-Vincent et al. 1831–1838; cf. McDonald 1972, 9–11; McDonald

and Rapp 1972, 259–260). Later in the century one very popular subject was ancient Koryphasion, both as a candidate for Homer's Pylos and as the site of the naval battle between Athens and Sparta in 425 B.C. (Grundy 1896; for ancient Koryphasion and for Schliemann's aborted excavations there, cf. Davis 1998c, 60–62; Spencer 1998, 23–27). In 1885, the Greek Archaeological Society began excavations at ancient Messene.

Mycenaean Remains Discovered in Messenia before 1939

In comparison with the rest of mainland Greece, relatively little attention had been paid to the prehistory of Messenia prior to the discoveries made by Carl W. Blegen and his colleagues in 1939. Before this, few prehistoric remains had been found in Messenia (cf. the summaries in *Messenia* I, 221 n. 1; McDonald and Hope Simpson 1972, 117–120, fig. 8-1). The most important Mycenaean material

came from the tholos tombs at Kambos: Zarnata (81) (Tsountas 1891), Tragana: Viglitsa (46) (Skias 1909; Kourouniotis 1914), and Koryfasion: Charatsari (57) (Kourouniotis 1925–1926), and the five tholoi found by Natan Valmin in the Soulima valley at Vasiliko: "Malthi-Dorion" (27), Vasiliko: Xerovrysi (28), and Kopanaki: Akourthi (23) (Valmin 1926–1927, 1927–1928, 1938). Valmin

also traveled extensively throughout Messenia, investigating and/or discovering sites of all periods. His observations are recorded in his slim, but fascinating *Études topographiques sur la Messénie*

Ancienne (Valmin 1930). His excavation of the small hilltop site of "Malthi-Dorion" (Valmin 1938, part I) still remains the only "total" investigation of a prehistoric settlement in Messenia.

The Discovery of the "Palace of Nestor" in 1939

In 1929 Konstantinos Kourouniotis had invited Blegen to join him in the further exploration of the Pylos district; but at the time Blegen was fully engaged in projects elsewhere in Greece. In 1939 he was at last free to take up Kourouniotis' offer, and with a small team (including William A. McDonald) he briefly explored the region around the Bay of Navarino. In this campaign Mycenaean sherds were found at several sites (including Koryfasion:

Portes [55], Koryfasion: Beylerbey [56], and Pylos: Vigla [63]). But the most promising site was Chora: Ano Englianos, and the 1939 campaign concluded with the trial trenches here in which the "Palace of Nestor" and its archive of tablets in Linear B script were discovered (Blegen and Kourouniotis 1939). The first tablets were found on April 4, 1939, in a trench supervised by McDonald (Bennett 1985; Davis 1998a; Wilkie 2000).

The Excavation of the Palace of Nestor and the Decipherment of the Linear B Script in 1952

From 1940 to 1951, World War II and its aftermath prevented further exploration in Messenia. But in 1952 fresh impetus was provided, both by the resumption of Blegen's excavations at the Palace of Nestor (1952–1966; see Blegen and Rawson 1966; Lang 1969; Blegen et al. 1973) and by Michael Ventris's decipherment of Linear B. In a

BBC Radio broadcast on July 1, 1952, Ventris announced his discovery that Linear B was an early form of Greek. Soon afterward, Ventris and John Chadwick began the partnership that culminated in their publication of *Documents in Mycenaean Greek* (1956) shortly after Ventris's untimely death (cf. Chadwick 1959, esp. 67–70).

Excavations Elsewhere in Messenia from 1952

After the death of Kourouniotis, Blegen's former colleague, in 1952, Spyridon Marinatos assumed the direction of the Greek part of the joint venture in western Messenia. The numerous sites in Messenia explored by Marinatos from 1952 to 1966 were mainly burial mounds, tholos tombs, and chamber tombs from Myrou: Peristeria (22B) in the northwest to Charakopeio: Demotic School (74) in the south. Among these, the most notable were the three early Mycenaean tholos tombs at Peristeria and the second tholos tomb at Myrsinochori: Routsi (48). He also discovered and excavated, in whole or in part, large Mycenaean buildings

at Peristeria, Mouriatadha: Elliniko (22A), Koukounara: Katarrachi (65), Koukounara: Palaiochorafa (65A), and Iklaina: Traganes (52). Other Mycenaean settlements were partly examined by Marinatos at Chora: Volimidhia (41), Koryfasion: Beylerbey (56), Tragana: Voroulia (45), and Petrochori: Voidhokoilia (60; cf. the tribute to Marinatos by Yannos G. Lolos [Lolos 1998a; cf. Lolos 1998b]). The sites in the Pylos district explored by Marinatos include nos. 56, 60, 61, 46, 45, 41, 41A, 69B, 67A, 65, 65A, 52, 49, and 48. Supplementary excavations were made subsequently by Marinatos's successor in Messenia, George

Korres, especially at Tragana, Voidhokoilia, Peristeria, and Koukounara (Korres 1974, 1975, 1976a, 1976b, 1977a, 1977b, 1978a, 1978b, 1979, 1980, 1981). Iklaina: Traganes is now being excavated by Michael Cosmopoulos (see, below, The Iklaina Archaeological Project).

Apart from Blegen's excavations at the Palace, the most thorough excavation of a Mycenaean settlement in Messenia was that at Rizomylo: Nichoria (76) from 1969 to 1975 by the University of Minnesota Messenia Expedition, under McDonald (*Nichoria* I–III). This was the first interdisciplinary investigation of a nonpalatial Mycenaean settlement in Messenia (significant Middle Helladic [MH], Dark Age, and Byzantine remains were also found at the site). It has been provisionally identified as the center of *ti-mi-to-a-ke-e*, one of the main districts of the Kingdom of Pylos (see, below, Ch. 3). It is estimated that Mycenaean settlement

was fairly dense over ca. 50,000 m² of the Nichoria ridge. Although only about a tenth of this area was excavated, the approximate size of the settlement is also indicated by geophysical testing and trial excavations in the rest of the site (Lukermann and Moody 1978, 87).

More recently, several excavations, usually of a "rescue" nature, and mostly of tombs, have been made at various locations in Messenia by successive representatives of the Greek Archaeological Service of the 38th Ephoreia of Prehistoric and Classical Antiquities. Significant new discoveries include those in the northern part of the Soulima valley (nos. 24D, 24E, 25A) and in the interior cantons to the west of the Pamisos River (nos. 76F, 76H, 76J, 76K). Even more important are the excavations of the impressive Mycenaean chamber tombs at Aithaia: Ellinika (78) (ancient Thouria; see, below, Chs. 2, 3).

Surface Survey in Messenia after World War II

The University of Minnesota Messenia Expedition (UMME)

The decipherment of the Linear B script and Blegen's renewed excavations of the "Palace of Nestor" naturally prompted speculation concerning the extent of the territory that may have belonged to the Late Bronze Age "Kingdom" of Mycenaean Pylos (see, below, Ch. 3). In 1953, McDonald again took part in Blegen's excavation, and afterward, with Blegen's encouragement, for two weeks resumed the surface investigation of the Pylos district begun in 1939, within a radius of up to 10 km from the Palace. In 1955, McDonald explored the coastal area from Kyparissia to Methoni for about four months, both searching for prehistoric sites and collecting their modern toponyms, and in both cases gathering material that might throw more light on the nature of the "Kingdom" evidenced by the Pylos tablets (McDonald 1984, 185–186; Wilkie 2000, 309). In 1958 the scope of McDonald's investigations was extended as far north as the Alpheios River and in the south as far east as Koroni (Messenia I, 222–223). The collection of toponyms was expanded to include all of the southwest Peloponnese (Georgacas and McDonald 1969).

In 1959, McDonald was joined by Richard Hope Simpson, who had previously made an extensive survey (1956-1958) of prehistoric sites in Laconia. In April to June 1959, the collaborators explored Messenia and Triphylia, with special attention to the Pylos district, and searching specifically for prehistoric sites. In 1959 they were accompanied for much of the time by Peter Topping (History and Later Greek Studies). In July 1960, they carried out a program of revisiting the sites, including those in the Olympia region, and they were assisted for ten days by John F. Lazenby (Ancient History). The archaeological results of the 1959 and 1960 campaigns were published in 1961 by Mc-Donald and Hope Simpson in the American Journal of Archaeology (referred to in this volume as Messenia I).

This archaeological fieldwork was "extensive" and selective, deliberately focused on prehistoric habitation, especially that of the Late Bronze Age (Mycenaean) period, and in accord with the objective of defining the probable extent of the "Kingdom" of Pylos. This bias is reflected in the subtitle of the UMME publication, *The Minnesota Messenia Expedition: Reconstructing a Bronze Age*

Regional Environment (referred to in this volume as MME), and is fully explained in its text (cf., esp., McDonald and Hope Simpson 1972, 123, 143–144). By agreement, any post–Bronze Age data or material collected was handed over to the care of the Greek Archaeological Service.

By 1961, it was realized that in order to reconstruct the palaeoecology of the region in the successive periods of the past, it would be necessary to collaborate with specialists in other disciplines, especially geography, geology, geomorphology, and other earth sciences (Messenia II, 230). The subsequent field campaigns, from 1962 to 1968, were enriched by the participation of experts in various related studies. These included Herbert E. Wright Jr. (geology), Frederick E. Lukermann (geography), Jesse E. Fant (civil engineering), Frederick A. Matson (ceramic technology), Catherine Nobeli (chemistry), William G. Loy (geography), Herman J. Van Wersch (agricultural economics), Nikolaos J. Yassoglou (earth sciences), Strathmore R.B. Cooke (metallurgy), Eiler Henrickson (geology), and George R. Rapp Jr. (geology and geophysics). These specialists, mainly from the University of Minnesota, were all "recruited" by McDonald, with the assistance of Rapp, who, with McDonald, later became the associate director of the Nichoria excavations. (All those who participated in UMME are listed in Messenia II, 229-230 and Messenia III, 123–125; cf. McDonald 1972, 5).

During the campaigns of 1962 and 1963, McDonald and Hope Simpson were assisted in the archaeological survey by several others, especially Lazenby in 1963 (Messenia II, 229 n. 2). Furthermore, the scope of the investigation was enlarged to include geomorphological and palaeobotanical studies, particularly the core sampling by Wright and Lukermann in the Osmanaga lagoon (Messenia II, 229-230, 242-243; Wright 1972), and ancient and modern ceramic technology by Matson (Messenia II, 243–245). In 1962, Fant measured and mapped the remains of successive ancient roads between the modern villages of Neromylo and Kazarma, on the route from the Pylos district to the Messenian Gulf (Messenia II, 240–241, fig. 2, pl. 70; Fant and Loy 1972a, 25–28, fig. 2-5). In 1963, members of the expedition, including Fant, made a brief comparative survey of the remains of roads in Crete that had been designated by Sir Arthur Evans and others as probably Minoan in origin (Messenia II, 241–242). No evidence, however, was found for any Minoan highways designed for wheeled traffic (cf. Fant and Loy 1972a, 28–30, fig. 2-8; Hope Simpson and Hagel 2006, 168–169).

For the campaigns from 1964 to 1966, Hope Simpson served as field director (McDonald was not able to direct the field operations in these years, due to other administrative responsibilities). In 1964, Lukermann continued his geographical investigations, including a comparative study of the Medieval (M) and early modern periods (Lukermann 1972). Matson, assisted by Hope Simpson, completed his research on the modern ceramic industry in Messenia. Fant continued his program of surveying and photogrammetry, with the cooperation of the Hellenic Air Force and their gift of copies of discarded 1954 air photographs of Messenia and adjacent areas to the north and south. In 1965 Hope Simpson and Roger Howell (then a student of the British School at Athens) resumed the archaeological exploration (cf. Hope Simpson 1966). In 1966, Fant produced plans of selected sites in Messenia, Loy completed his fieldwork on Messenian geography and geology (under Lukermann's supervision), and Van Wersch began his field research for a comparative study of land use patterns in Messenia and Tunisia (Van Wersch 1969, 1972; Loy 1970; Fant and Loy 1972a, 1972b).

In 1959 and 1960 the archaeological fieldwork had included Triphylia and the Olympia region (Messenia I, pls. 73, 74). But by 1962 Chadwick had realized that the "Kingdom" of Pylos probably did not extend farther north than the vicinity of the Neda River, or much farther south than the Kalamata region; i.e., it probably consisted of approximately the same territory as that of modern Messenia (Chadwick 1963; see, below, Ch. 3). In any case, it was already obvious that it would not be possible for the UMME archaeologists (usually only two in the field on each occasion, up to a maximum of four at times in 1967 and 1968) to explore all of Messenia, even selectively, in the limited time available. The most that could be expected was a broad overall coverage of the presently inhabited districts of Messenia (an area of at least 1,800 km², excluding mountains and marshes). From 1962 onward, therefore, the UMME team concentrated on filling the more obvious gaps in their coverage of Messenia

and on discovering as many of the prehistoric settlements as possible, especially the Mycenaean.

In 1966, from the aerial photographs donated by the Hellenic Air Force, together with out-of-date official maps loaned to the expedition, Loy made a set of contour maps of the area. He and Hope Simpson together plotted on these maps the locations of the prehistoric sites already discovered, and they also recorded this information on the backs of the photographs. Hope Simpson and others then, and in 1967 and 1968, extrapolated from study of the aerial photographs other precise locations where prehistoric settlements might have existed (Hope Simpson 1985, 259). These specific retrodictions were, of course, based on the assumptions that such sites would probably resemble in their configuration the sites already discovered, many of which, especially the Middle and Late Helladic (Mycenaean), were on low hills usually with more flattened tops and more neatly terraced slopes, demonstrating a more strongly marked human interference with nature. The study of the aerial photographs was made in Greece in the field; in 1967 and 1968 this study was often carried out during the later afternoon "rest" period and in preparation for the fieldwork of the following day (contrary to the supposition by Davis [1998d, 284], no such study took place "in the winter in North America"; and McDonald was not able to participate in this exercise because his eyesight was not compatible).

Hope Simpson and Loy spent only a few days in 1966 in active search in the field for prehistoric sites. In 1967 and 1968, McDonald and Hope Simpson carried out two summer campaigns, each of six to seven weeks, with the occasional assistance of others, including Howell and Nancy Wilkie (Messenia III, 124-125). They attempted to complete at least partial coverage up to the Neda River in the north and as far to the south as Platsa in the Mani (Map 1). The aerial photographs proved a particularly useful diagnostic tool for locating Bronze Age (BA) settlements, especially the Mycenaean. Over 70% of the places picked out from these photographs as "probables" and investigated in 1967 and 1968 did in fact turn out to have been Mycenaean sites (Wilkie and Coulson, eds., 1985, xix; cf. Mc-Donald and Hope Simpson 1972, 122), although several other prehistoric sites identified in 1967 and 1968 were discovered by other means.

The Pylos Regional Archaeological Project (PRAP)

After a long interval, archaeological surface survey was resumed by PRAP, a new interdisciplinary project (1991-1996 and continuing) under the overall direction of Jack L. Davis and a team of codirectors, composed of Susan E. Alcock (Historical Studies), John Bennet (Field Director), Yannos G. Lolos (Earlier Prehistoric Ceramics), Cynthia Shelmerdine (Later Prehistoric Ceramics and Museum Management), and Eberhard Zangger (Earth Sciences). The archaeological survey (Davis et al. 1997) was accompanied by investigation of the natural environment by a team coordinated by Zangger, including Michael E. Timpson (soil science), Sergei B. Yazvenko (botany and palynology), Falko Kuhnke (geophysics), and Jost Knauss (hydroengineering) (Zangger et al. 1997). As in the UMME project, the purpose was to combine the work of archaeologists and historians with that of the physical scientists to reconstruct the environmental history of the region (Zangger et al. 1997; cf. McDonald 1972, 9, 13-17; Zangger 1998a; 1998b). "In a sense, the survey conducted by PRAP might be viewed as a de facto second-stage research project, pursuant to the fieldwork of UMME" (Davis et al. 1997, 396).

The PRAP archaeological team surveyed about 40 km² of their ca. 250 km² study area (the Pylos district and environs) and also examined sites previously known in an additional 30 km². In contrast to the extensive and selective broad coverage of all Messenia by UMME, the PRAP survey was concentrated in a far smaller area, and was intensive and fully diachronic within the tracts selected. Unfortunately, "external factors" prevented the complete realization of the PRAP original research design, so that several important areas, especially around the Bay of Navarino and in the vicinity of modern Pylos, could not be included among the tracts intensively surveyed (Davis et al. 1997, 398-400). Instead, PRAP were able to survey a considerable portion of the coastal areas farther north, between Petrochori and Marathopolis. The survey procedures (described in Davis et al. 1997, 400-402, 407-414) included systematic walking of the tracts, in parallel lines, by workers spaced about 15 m apart, and the electronic storage and management of all data acquired. Some selected sites of special interest were further examined by means of gridded surface collection and techniques of subsurface detection, including magnetometry, electrical resistivity, and drilling (Zangger et al. 1997, esp. 595–613).

For the Mycenaean period, the most important discoveries made by PRAP were in the vicinity of the Palace itself. A thorough investigation of the area around the Palace on the Ano Englianos ridge revealed a spread of LH III sherds (LH IIIA and LH IIIB) over at least 12.4 ha, or, if including the Palace structures, ca. 18 ha (Davis, Bennet, and Shelmerdine 1999, 181). Geophysical exploration provided indications of a (putative) circuit wall (a fortification?) at the site, and, mainly by means of drilling, evidence was found for an ancient, and probably Mycenaean, artificial cothon ("basin") harbor near Romanou, ca. 4.5 km southwest of the Palace (Zangger et al. 1997, 600-623, 625-626; Zangger 1998c). In the latter case, the search by PRAP for evidence of such a manmade harbor was induced in part from the deduction, by UMME scientists, that to the south of the Palace, the Selas River, which had originally flowed southward toward the Bay of Navarino, had been diverted by man toward the western coast near Romanou (Kraft, Rapp, and Aschenbrenner 1980).

The PRAP survey revealed only a few "new" (i.e., previously unknown) Mycenaean settlements, the most important of which was at the prehistoric (and later) site of Romanou (I4). They also discovered traces of some smaller "new" Mycenaean settlements, such as Gargaliani: Megas Kambos (D2) and Vromoneri: Pigadhia (G3). Their reexamination of sites previously found by others included the Mycenaean and prehistoric settlements at Koryfasion: Beylerbey (56; PRAP I1), Gargaliani: Ordines (37; PRAP K1), Metaxadha: Kalopsana (41B; PRAP A2), and Margeli: Koutsoveri (34; PRAP L1).

The archaeological work of PRAP is continuing with further study and publication, and a reexamination of finds from Blegen's excavations at the Palace (Davis, Bennet, and Shelmerdine 1999, 182–183; see also the annual reports in *Archaeological Reports* [AR] from 1995–1996 onward) under the general supervision of Bennet, Davis, and Shelmerdine, and the direction of Sharon Stocker. Study of the unpublished finds of the Palatial period from Blegen's excavations was begun in 1997 by Suzanne Hofstra and Robert Schon. From 2000, Stocker and Davis have supervised the reorganization and

conservation of the material from Blegen's excavations stored in the Chora museum.

Minnesota Archaeological Researches in the Western Peloponnese (MARWP)

This project (also known as the Minnesota Pylos Project) began in August 1990, under the direction of Frederick A. Cooper and Michael C. Nelson. Preliminary reports on the seven field seasons (1991–1998) are given in AR from 1991–1992 to 1998-1999. The main goals of the project were to provide a detailed plan and architectural record of Blegen's excavations of the Palace, and a detailed topographical map of the palace plateau and surrounding terraces on the Ano Englianos ridge. The work involved the re-excavation of the backfill in Blegen's trenches and the reexamination of all the physical remains uncovered of the structures of the Palace and the acropolis. Finds recovered in the process were examined by members of MARWP in conjunction with PRAP.

The Iklaina Archaeological Project (IKAP)

This project is under the direction of Michael Cosmopoulos, assisted by Cynthia Shelmerdine, Chris Mundigler, Deborah Ruscillo Cosmopoulos, and Douglas Edwards. The first stage was the intensive survey (1999-2006) of the area (ca. 17 km²) southeast of, and adjoining, the territory of the Palace, and including the villages of Iklaina, Platanos, and Myrsinochori (Cosmopoulos 1999; 2000; 2001; 2002; 2003; 2004; 2005; 2006a; cf., esp., 2006b, 219, fig. 5). In several respects, the IKAP survey complemented both the UMME and PRAP surveys. Like PRAP, the IKAP survey was fully intensive, with field walkers only ca. 5 m apart within the selected transects (compared with the ca. 15 m separation adopted by PRAP). Five more Mycenaean sites (including M, D, I, and K) were added to the four already known in the area (Cosmopoulos 2006b, esp. 219 n. 87; cf. Whitley et al. 2005-2006, 143). It was established that the spread of Mycenaean LH III surface sherds at the principal site, Iklaina: Traganes (52; IKAPT), was

ca. 12 ha, second only to that of the "Lower Town" around the Palace of Pylos. The quantity and quality of the Mycenaean sherds found on this western part of the Iklaina plateau was impressive.

Traganes itself was first investigated by Marinatos in a brief excavation, by which he uncovered remains of a monumental structure, "Cyclopean" walls, excellent pottery, and other finds, including

fresco fragments (Marinatos 1954; cf. Cosmopoulos 2006b, 219–220). In 2006, excavations were resumed under the direction of Cosmopoulos and are continuing. Above MH and LH II–IIIA1 strata are remains of a LH IIIA2–B complex, consisting of at least four houses, which was destroyed at the end of LH IIIB (Cosmopoulos 2006a, 2008, 2009).

The Mycenaean Period in Messenia: The Contribution of Surveys

The UMME Extensive Survey

The UMME survey in Messenia began as a pioneer venture, mainly archaeological and specifically "targeted" at the prehistoric periods, especially the Mycenaean. It was later turned into at least a multi-disciplinary expedition, largely due to the efforts of McDonald and Rapp. However, as they remark (McDonald and Rapp 1972, 240, cf. 3), there is a question as to whether the UMME project ever became fully interdisciplinary. And the field data collected by UMME were far from sufficient.

I discuss here only the archaeological data and the means by which they were acquired. The procedures adopted in the UMME archaeological survey have been described in various publications (especially in Messenia I-III, MME, and in Wilkie and Coulson, eds., 1985, xviii-xx). I take this opportunity to dispel some of the misconceptions recently published concerning these procedures. The archaeologists of the UMME team had no preconceived assumptions as to where prehistoric sites were likely to be found (although they had previously discovered some). No locations were "overlooked because they did not conform to prior expectations" (Davis 1998d, 284). But choices had to be made as to which areas should be given priority, especially in 1967 and 1968 when so little time and so few personnel were available. In 1959, the pace had been more leisurely (camping for three consecutive nights in some locations) and with a concentration on the Pylos district, which was given fuller coverage.

Although the UMME survey (conducted mainly by McDonald and Hope Simpson) was extensive

and selective, each "new" (i.e., discovered by UMME) site was thoroughly searched, and particular care was taken in the attempt to define its probable size, or at least that of the "spread" of ancient artifacts on its surface. The extent of each "spread" (mainly of sherds) was measured with the use of a compass and tape measure, and/or by pacing ("calibrating" the paces to approximately a meter each). In general, priority was given to the "new" (UMME) sites and less attention to sites previously found by others (e.g., the "Lower Town" of the Palace at Ano Englianos and Marinatos's site at Iklaina: Traganes [52], for which, see above and Ch. 2, below). In the field, Hope Simpson was responsible for the recording and photography at almost all of the sites investigated; McDonald was usually the driver—a more arduous task, piloting the Land Rover, often on dirt tracks, through mud, dust, stones, and ruts.

The simple methods used by UMME have often been criticized in light of the current preference for "intensive" and fully diachronic survey. But, with respect to prehistoric habitation, most of Messenia was terra incognita in 1959. To select only a small part of it for intensive survey was at that time not an option. Intensive survey requires much more time and many more participants (even in 1967 few were available). The time spent in the field, from 1959 to 1968, by UMME archaeologists in the inhabited parts of Messenia (an area ca. 1,800 km²) added up to between three and four "person-years" (usually by only two or three persons on any one day). The time spent in the field by PRAP, from 1991 to 1994, in only part (ca. 40

km²) of the Pylos district, by an average of 35 persons each season, was said to have been about 7.5 "person-years" (Davis et al. 1997, 391, 403; Davis 1998d, 285).

Some selective search techniques used by UMME, especially the scanning of aerial photographs, are more likely to result in the discovery of medium-sized or larger sites (over about 1 ha in extent) rather than smaller sites (under 1 ha). Nevertheless, UMME also found many of these smaller sites (MG, 142-144; refuting Bintliff 1977, 133-134), several of which had been selected as "probables" by study of the aerial photographs. Even in an intensive survey, it would be expected that a greater proportion of the medium-sized or larger settlements would be discovered than of the smaller settlements, since the latter are more likely to have been destroyed or, because of their small size, are less likely to be discovered by surface exploration alone.

Despite the attempt made by UMME in their last campaigns (1966-1968) to complete at least a broad coverage of Messenia, there remained some major gaps (cf. MG, 113: "the fieldwork in Messenia is far from complete"). About 30% of the terrain suitable for settlement (i.e., excluding mountains and marshes) was not even visited by the UMME archaeologists. Of the remaining 70%, only a few regions (mainly in the Pylos district and the Soulima valley) were given sufficient coverage, even for an initial "extensive" survey. The description of the UMME survey as a "broad reconnaissance" (Davis et al. 1997, 396) may be an understatement, but by 1966 the main objective of the very small UMME team had become simply to find as many of the prehistoric sites (especially the Mycenaean) in Messenia as possible in the limited time available (McDonald 1984, 187; Hope Simpson 1985, 259). Ideally, and in retrospect, it would have been desirable to have had the time and personnel to also record more fully the material encountered of the historic and later periods. This deficiency was fully admitted, and an attempt was made later, in the UMME publication, to make up for it (Lazenby and Hope Simpson 1972; McDonald and Hope Simpson 1972, 123, 143-146; MME, register B; cf. Davis et al. 1997, 393-396). Nevertheless, the UMME bias toward the prehistoric, and particularly the Mycenaean, periods has

resulted in providing, in a relatively short time, a considerable body of data concerning the nature and extent of Mycenaean habitation in Messenia.

The PRAP and IKAP Surveys

The initial intent of the PRAP diachronic and intensive survey was "to examine the entire historical and prehistoric spectrum of human occupation in western Messenia" (Davis et al. 1997, 397). The area intensively surveyed by PRAP actually comprised about 16% (ca. 40 km²) of their study area (ca. 250 km²). Unfortunately, they were not permitted to survey in all of the territory originally intended. In particular, since the hinterland of modern Pylos was excluded, several sites of prehistoric and historical importance around the Bay of Navarino could not be intensively surveyed by PRAP, including classical Koryphasion, the citadel of Paleonavarino, and the territories of the villages of Yialova and Pyla (Davis et al. 1997, 399-400). Fortunately, PRAP were able to include all the environs of the Palace on the Ano Englianos ridge and most of the adjacent coastal area in the vicinities of Romanou and Tragana. Besides this almost continuous strip, "sample areas" of irregular dimensions were selected for examination in six other locations in the Pylos district (Davis et al. 1997, 393, 399-400, fig. 2). For the Mycenaean period, the most important new data obtained by PRAP were in the "Lower Town" around the Palace and at Romanou adjoining the (putative) harbor. Apart from I4 (Romanou), no other large "new" Mycenaean settlements were discovered by PRAP. And, among the sites found before by others and scientifically reexamined by PRAP, the importance in LH III of the sites at Beylerbey (56) and Ordines (37), especially of the latter, appears to have been exaggerated by PRAP, whereas the significance of the Mycenaean settlement at Romanou was not fully recognized by them (see, below, Chs. 2, 3).

The fieldwork of PRAP has been effective within the sectors they have examined intensively. But, in the conclusions drawn by their protagonists concerning the Mycenaean period in particular, there has been a marked tendency to rely mainly on the data they themselves have gathered, without taking full account of the data acquired previously by others. For example, PRAP were not allowed to include in their intensive survey the vicinity of the Bay of Navarino. But the sites already found around its shores are numerous, and two of them at least appear to have been quite large (Yialova: Palaiochori [58] and Pyla: Vigles [58A]). These, and the many other sites previously discovered in western Messenia (including several between Gargaliani and Filiatra), deserve the same consideration as that given by PRAP to the sites they themselves have investigated. As is demonstrated below (Chs. 2, 3), all are of equal relevance, both to the overall pattern of Mycenaean settlement in the region and to the question of the locations of the districts in the Kingdom of Pylos as recorded in its Linear B archives.

It had been the intention of PRAP "to study in detail the territory of one of the several major Mycenaean centers to the south of Englianos (e.g., Iklaina or Koukounara)" (Davis et al. 1997, 400). In 1991, their reconnaissance included visits to the known sites, previously explored by Marinatos and Korres, in the area between Koukounara and Stenosia (PRAP sites I9–I16; Davis et al.

1997, 393, fig. 2). This original objective of PRAP is now being partly fulfilled by the IKAP survey of the Iklaina district and their renewed excavation of its Mycenaean center at Traganes, identified by many as the center of a-pu,-we, one of the main districts of the Kingdom of Pylos (see, below, Ch. 3). In several respects, the objectives of the IKAP project resemble those of UMME, and the excavation of Traganes is analogous to that of Nichoria (proposed as the center of *ti-mi-to-a-ke-e*). The difference is that the IKAP project is "sharply focused" on a particular district within the Kingdom in order to "examine it as a self-standing entity, so that we can assess its function and status in relation not only to the palace but also to other districts, and reconstruct the nexus of its settlements, large and small" (Cosmopoulos 2006b, 207–208, with references). Cosmopoulos reminds us that we do not know the degree of control exercised by the Palace in various phases, and we need to "highlight the importance of local communities and decentralized economies by developing fresh perspectives of the material record."

Mycenaean Messenia: The Current State of Exploration

The data we now possess for Messenia in the Mycenaean period are of diverse origins and of uneven quantity and quality. In many cases only the tombs belonging to a particular settlement have been found, but not the settlement itself, or vice versa (especially in the case of surface survey); and the overall coverage of the territory also remains uneven (despite the attempts by UMME to rectify this). Except for Nichoria, Peristeria, and "Malthi-Dorion," the excavated, or partially excavated settlement sites have almost all been in the Pylos district; and this district has been the most thoroughly surveyed, first extensively (mainly by UMME) and later intensively by PRAP and IKAP. Apart from the Nichoria excavations, our knowledge of eastern Messenia comes mainly from the surface finds made by UMME and from the various tombs excavated by the Greek Archaeological Service (especially now those at the site of ancient Thouria).

The relevant archaeological data from Messenia are listed and discussed in Chapter 2, below. Attention is drawn especially to the factors affecting the distribution of surface finds, and to the consequent varying reliability of estimates based solely on this distribution. Surface survey is, of course, an extremely valuable (and relatively inexpensive) archaeological tool (cf., e.g., Cherry 1984; Davis 1998d). It is especially useful in Greece, where the visibility of artifacts observed on the surface has often been enabled by erosion and/or cultivation. But the obvious limitations inherent in surface survey should also be fully recognized and acknowledged (cf., e.g., Hope Simpson 1984; 1985; Cavanagh et al. 2002, 41-47). Whenever and wherever possible, survey of a district should be accompanied by (or preceded/followed by) at least some excavation, preferably of stratified deposits.

More exploration is now urgently needed, before modern construction and land development completely destroy "the entire archaeological landscape" (Davis 1998b, xli-xliii). The archaeological sites in Messenia (as elsewhere in Greece) are

under constant threat, and only a few are officially protected.

Mycenaean Sites in Messenia

The core of this chapter consists of a register of the known Mycenaean sites in Messenia and a commentary outlining the present state of exploration.

For the earlier Mycenaean periods, LH I to LH IIIA1, our evidence often comes only from tombs. Both excavation and survey have thrown the most light on the LH IIIA2 and LH IIIB periods, which are represented by diagnostic sherds at most of the Mycenaean habitation sites found by survey. At almost all of the early Mycenaean settlements it appears that occupation continued into LH IIIB, and it may be assumed that most of the Mycenaean sites in Messenia were inhabited at the time immediately preceding the destruction of the "Palace of

Nestor" at Ano Englianos at the end of the LH IIIB period. It is evident, however, that very few sites were occupied (or reoccupied) in LH IIIC.

An attempt is made here to indicate the gaps in exploration and to estimate the probable numbers and sizes of the Mycenaean settlements that once existed in Messenia prior to the destruction of the Palace. Although the results of excavation and survey have made this exercise possible, it also involves a large measure of conjecture, as does the rough estimate of the population of Messenia at the time. But the information we now possess is already sufficient to enable at least a definition of the parameters for these retrodictions.

Modern Land Use in Messenia and Archaeological Exploration

Most of the land use in Messenia, with the exception of land presently occupied by buildings, is agricultural. Successful archaeological exploration

depends mainly on the condition of the terrain at the time when it is being examined. This is particularly true in the case of surface survey in Messenia, where the positions of ancient artifacts on the surface are due mainly to the effects of cultivation, erosion, or both.

The brief comments here on the modern agricultural economy of the region are based largely on data from the 1960s, as was used in *MME*, especially in the sections by Van Wersch (1972) and Yassoglou and Nobeli (1972), and in the summary (McDonald and Rapp 1972, 245–252), together with Loy's detailed analyses of selected areas (Loy 1970). The modern towns and villages of Messenia are those listed in the National Statistical Service of Greece census of 1961 (*MME*, 324–327, pocket map 1-7). Included here also are personal observations made in the field from 1955 to 1968, a time of great changes in land use in Messenia, and indeed throughout Greece.

In Messenia, as in most of the rest of Greece, agriculture has now become much more specialized and commercialized. There are now almost no sheep or goats to be seen, in contrast to the large flocks that were still present in 1959. The formerly ubiquitous donkeys have been superseded by motorized transport. In 1955–1960 there were still

some fields, often on hill terraces, where grain crops were grown between the olive trees in the traditional manner of subsistence farming. But by 1970 many of the terraces had either been abandoned (except for the olives) or removed by heavy machinery, and the resulting smoothed-out slopes planted with vines, citrus crops, or apricots. More recently, some formerly cultivated land, especially in the vicinity of the Bay of Navarino, has been fenced in and given over to private or public recreational use, including major alterations to the landscape for the creation of a golf course. In many cases the land is no longer being plowed, and the field surfaces have accordingly become occluded by thick maquis vegetation. Consequently, it will now be more difficult to carry out surface survey in places where destruction has occurred or where the surface is no longer accessible. (It does not follow, however, that surface survey should be discontinued. On the contrary, it should be exponentially increased, while there is still time to recover the evidence.) In retrospect, therefore, many of the excavations and much of the survey work in Messenia turn out to have been of a "rescue" nature.

Ancient Land Use in Messenia

The evidence for the ancient agricultural economy in Messenia, particularly for the Mycenae-an period, is now considerable (as summarized in both *MME* and Zangger et al. 1997; cf. Carothers and McDonald 1979, esp. 440–449). The short review here is intended both to outline the major factors involved and to serve as a partial introduction to the discussions in Chapter 3, below.

Messenia is well provided with the conditions required for a successful agricultural economy, with "an unusually moist climate, good soil, and a comparatively high percentage of level land" (Van Wersch 1972, 177). The data from pollen cores (from the Osmanaga lagoon bed) and the contents of the Pylos Linear B tablets together demonstrate that the same favorable conditions also existed in Mycenaean times (Wright 1972, 188–199; Zangger et al. 1997, 576–595). Particularly significant are the "Neogene" hills and plateaus in Messenia formed during the Pliocene (*MME*, pocket

map 3-7, esp. "Pliocene terrace," "hill land," and "Kampos").

Apart from the urban centers, especially the city of Kalamata, the modern population (ca. 1960) was concentrated mainly in the Pamisos and Soulima valleys and the coastal plains. Before the deposition of the more recent alluvium in the southern part of the Pamisos valley, the coastline here was farther to the north, and the valley was considerably smaller and more marshy (Kraft, Rapp, and Aschenbrenner 1975). And the soils most easily tilled by primitive Bronze Age plows and other implements would, in any case, have been the Pliocene marls on hillsides around the plain, rather than the alluvium in the plain itself, although this and other wet lowlands would have been suitable for grazing, especially by horses and cattle. Dry farming must surely have been the main means of cereal production, and for this the more easily cultivated hill terraces and plateaus may have been of greater importance than the "bottom land" of the plains. The main needs were the retention in the terraces and other fields of the appropriate amount of rainfall, together with sufficient drainage. Irrigation would presumably have been restricted to areas that could be watered from springs, wells, or small streams, with flows not large enough to cause flooding (Van Wersch 1972, 184). Nevertheless, in all parts of Messenia the abundant perennial springs, and the lush vegetation around and below them, must have contributed to the amount of animal husbandry attested by the Pylos tablets, and many of the Mycenaean settlements were located near these springs (Van Wersch 1972, 184;

Carothers and McDonald 1979, 440–449; pace Bintliff 1977, 115). More of the land would then have been used for cereal crops than for tree crops, and olives may then have been of less importance than in 1960. That flax was comparatively more important here in Mycenaean times is demonstrated by the many Pylos tablets that refer both to flax and to linen production (see, below, Ch. 3). "Flax now occupies only a tiny fraction of Messenia's agricultural land, but it is interesting to note that Messenia is the largest flax-producing region in Greece, with 55 percent of the national acreage in 1961" (Van Wersch 1972, 181; cf. Robkin 1979, 471; Halstead 2001).

Register of Mycenaean Sites in Messenia

The Register (Table 2, pp. 20–29) lists only the sites shown on Maps 1 to 6 and gives only a brief summary of these. It is not intended to be a replacement, for instance, for Register A in *MME* (264–309; cf. McDonald and Hope Simpson 1972, 122–128), where fuller details and descriptions are given. It does, however, also include summaries of the main discoveries made after 1968. So far as possible, the sites are grouped in accordance with the natural topographical divisions of the regions, and listed under the modern villages to which they belong. Readers will, however, need to consult Maps 1–6 to follow the sequences in each division.

Site Numbers

Most of the numbers are those assigned in the "Summary List of Sites" in *Messenia* III (161–168), where the sites discovered up to 1968 are recorded. Some sites subsequently explored by members of the Greek Archaeological Service are here given provisional numbers which follow the same numbering system. As was explained in *Messenia* III (128), this system, although somewhat awkward, was occasioned by the cumulative nature of the UMME pioneer exploration. The system is retained here and used on Maps 1–6, both for technical reasons and because the *American Journal of Archaeology* (which contains the UMME primary

reports) is more readily available (i.e., in more libraries) than the subsequent publications *MME*, *GAC*, and *MG*. Only the main "new" Mycenaean sites discovered by PRAP and IKAP are marked on Maps 2 and 3 (with their published numbers); no attempt is made here to list all of the places where they found Mycenaean artifacts.

Site Names

It is difficult to maintain consistency in the transliteration of modern Greek words into English spellings. The transliterations adopted here, for the modern Greek toponyms of the sites and of the preceding names of the villages or towns to which they belong, usually follow the more customary published versions (e.g., "Chora," rather than "Hora" or "Khora"). For the sites discovered up to 1978, the spellings adopted are mainly those of GAC, which has been acknowledged as the standard reference work for these. For the sites found more recently by PRAP and IKAP, their published spellings are adopted. Instead of the more phonetic transliterations Ayios and Ayia (e.g., for Ayios Christophoros and Ayia Analipsis), the spellings Hagios and Hagia are used, in accordance with the format preferred by the INSTAP Academic Press, who have given their assent to the transliterations adopted here.

Concordance of *MME*, *GAC*, *MG*, and Other Site Numbers

This has now proved to be necessary, as is shown by the confused citations and/or omissions in subsequent publications. The "new" EAY, PRAP, and IKAP numbers, and new numbers given by PRAP to sites found previously, are also indicated.

Dates

Only the known dates of sites where Mycenaean (LH) remains have been found are listed here. Prehistoric and other sites where no Mycenaean material has been claimed are usually not included in the Register. It is sometimes difficult to decide whether a particular site should be included in the LH category. In cases where there is doubt, a question mark (?) is added. Abbreviations for archaeological periods are listed in the introduction.

Late Helladic Type and Extent (as Evidenced by Excavation and/or Survey)

Late Helladic habitation sites, i.e., remains of Mycenaean settlements, are abbreviated as HAB. Late Helladic burial sites (e.g., graves, cemeteries) are abbreviated as CEM; the abbreviation ChT indicates a chamber tomb. Approximate estimates of the extents of Mycenaean settlements are given in hectares (1.0 ha = 10,000 m²). It must, however, be recognized that most of these estimates have been based on surface survey alone and at some sites no estimates were possible.

Excavation

Most of the excavations at Mycenaean sites in Messenia have been of tombs. Apart from the Palace of Nestor, few of the Mycenaean habitation sites have been even partially excavated. Settlements at Iklaina, Koukounara, Mouriatadha, and Myrou: Peristeria were only briefly investigated by Marinatos, although further important work was done later by Korres at Koukounara and Peristeria, and the Iklaina settlement is being more fully excavated by Cosmopoulos (see, above, Ch.

1). The only complete excavation of a Mycenaean settlement in Messenia has been that of "Malthi-Dorion" by Valmin. But this was a relatively small settlement, important only in the MH and early LH periods. Although the Palace of Nestor itself is now almost entirely revealed, only a small sample of the "Lower Town" around the Palace has been examined. The much more extensive excavations at Nichoria by McDonald et al. have provided the fullest and most diverse information about this large, but less than palatial, prehistoric settlement. Even here, where a comparatively large area was at least partly explored, we still do not know the actual extent or density of the Mycenaean habitation. The Nichoria ridge itself is ca. 500 m long and has an average width of ca. 100 m, but it was estimated that perhaps only ca. 4 ha was actually built over in the LH period (MME, 280; cf. Mc-Donald 1975, 135).

Survey

Most of the Mycenaean settlements known in Messenia have been discovered and examined by surface survey only. Their approximate extents (where these can be estimated) have been calculated on the basis of the observed distribution (or "spread") of artifacts (mainly potsherds) judged to be Mycenaean on the surface examined. Obviously, it is essential that the "visibility" of the surface surveyed should be at least adequate (Cavanagh et al. 2002, 47; cf. Hope Simpson 1984, 116). If so, it may be possible to estimate approximately the area within which ancient artifacts are observed. But it is more difficult to estimate the "spread" of artifacts of any particular period (in this case of a particular Mycenaean period). Many surface sherds are worn and/or otherwise undiagnostic, and they may have been moved (either by man or by natural causes) from the locations of their original deposition. Furthermore, without at least some excavation, we still cannot estimate how much of the area of their "spread" was actually occupied by buildings, let alone by those of any specific period. This difficulty was well articulated by the leaders of the Laconia Survey as the problem of "Representation," i.e., "how well what is on the surface represents the archaeology of what is buried below" (Cavanagh et al. 2002, 41, 47; cf. Hope Simpson 1985). As they comment, "[t]he problem of representation

can only be fully addressed by a program of excavation" (Cavanagh et al. 2002, 44). Even scientific means of subsurface detection, such as electrical resistivity and magnetometry, cannot by themselves reveal the date(s) of the structures or deposits detected. The problem is further compounded by the constraints of differential "Erosion," or conversely of "Burial of Sites" (Cavanagh et al. 2002, 41, 44, 47). And surface indications may themselves sometimes be misleading. "Badly eroded sites may show more surface pottery than those with deep stratification" (McDonald and Hope Simpson 1972, 126). From surface survey alone we can never ascertain that a site was not in use in any particular period. We must also take into account the dates and the seasons when the surface investigations were made (in Messenia usually in the summer, and, for most of the sites surveyed by UMME, only one "visit" to each site), and the state of cultivation (or lack of cultivation) and/or other use of the site at the time. For sites of prehistoric periods especially, a further complication may be the subsequent use of the site in historic or later times, particularly when it has been reused for an important settlement (e.g., Kalamata and Kyparissia). Later use and later structures have often obscured or obliterated the earlier (prehistoric) deposits (Hope Simpson 1984; cf. Mc-Donald 1984).

Sizes of Mycenaean Settlements in Messenia

For the reasons outlined above, our estimates of the extents of the Mycenaean settlements in Messenia (and elsewhere in Greece) must be regarded as provisional. The suggested assignations below of types of settlement ("village," "hamlet," and "farm") are likewise provisional. The term "village" is here confined to sites estimated to have been larger than 1.0 ha, i.e., over 10,000 m². Sites with a LH sherd spread of between ca. 0.5 ha and ca. 1.0 ha are classified as "hamlets," considered too small to be "villages," but probably larger than only "farms." (A good example of a "hamlet" appears to be the Melathria settlement in Laconia, at ca. 0.8 ha, as described by Cavanagh and Crouwel 1992; cf. Cavanagh et al. 2002, 144-147.) Sites below ca. 0.5 ha are here designated as "farms," but in some cases they may reflect only seasonal activity (Cavanagh et al. 2002, 44), "results of manuring or

remnants of other activities of limited scope" (Cosmopoulos 2006b, 222 n. 98). It is indeed difficult to assess the character of these smallest "sites" or "small concentrations of sherds." Apart from these, most known Mycenaean settlements in Messenia appear to have been small in comparison with the modern villages, i.e., small "villages," between ca. 1.0 and ca. 2.0 ha. Settlements estimated as over ca. 2.5 ha are few, and may be characterized as "large" in comparison with the rest (cf. Carothers and McDonald 1979, esp. 437–438).

Locations of Sites on Maps 1 to 6

The maps show only the approximate locations of the sites, and are themselves not entirely accurate. Before Loy had completed a set of contour maps in 1966, it had not been possible to plot the positions of the sites definitively. And the UMME archaeologists had not been able subsequently to visit (or revisit) several of the sites found previously, especially in the Pylos district (several of these were revisited by members of PRAP, cf. Davis et al. 1997, 396–398). Whenever possible, the locations of sites visited by UMME were indicated on the backs of the set of air photographs (taken by the Royal Hellenic Air Force in the 1950s), now located in the archives of the American School of Classical Studies at Athens (Davis et al. 1997, 402 n. 32). From now onward, it should be possible to record the coordinates of all (or almost all) of the sites by means of the Global Positioning System (GPS) by satellite. In the Register (Table 2) there are some corrections to the UMME preliminary reports (Messenia I–III), including some relating to the locations of sites.

References in the Register

Specific references in the Register are selective, and are listed mainly for sites explored after 1977. Sites explored up to the end of 1968 were recorded in *Messenia* I–III and included in *MME*, register A. These sites, and others explored up to the end of 1977, were included in *MG*. The "new" PRAP sites were reported in Davis et al. 1997 and the "new" IKAP sites in Cosmopoulos 2006b; cf. also the summaries in *AR*, especially those in volumes 21 (1974–1975) to 56 (2009–2010), s.v. Messenia.

Register of Mycenaean Sites in Messenia

Site		MME	GAC	MG			
Number	Site Name		r Survey Citations		Dates	LH Type and Extent	
THE PYLOS	DISTRICT (MAP 2)						
1. The Pal	lace of Nestor and Envir	ons					
	Chora: Ano Englianos	1	D 1	F 1	MH, LH I–IIIC,	HAB, CEM; 12.4 ha (for "Lower	
PYLOS*	(The Palace of Nestor)		PRAP B7		DA II–III, G, C, H, R	Town", ca. 18 ha if Palace included); tholoi, ChTs; "town"	
41	Chora: Volimidhia	20	D 20	F8	N(?), MH, LH I– IIIB, DA II,G, A, C, H	HAB, CEM; 30 ChTs; "village" (see commentary below for size	
41A	Chora: Hagios Ioannis	21	D 21	F 9	LH III(A2–B), R	CEM; 5 ChTs	
40	Abelofytos: Lagou	19	D 19	F 10	MH(?), LH I/II, LH IIIA–B	HAB; 1.0 ha; "hamlet"	
42B	Myrsinochori: Vaies	55	D 55	F 10	LH (III?)	HAB (small); "hamlet"(?)	
42A	Pisaski: Kokevi (or Mavroudhia)	2	D 2	F 2	LH IIIB2-C, LH IIIC Late, DA II	CEM; ChT	
55	Koryfasion: Portes	3	D 3	F 3	LH IIIB-C	HAB; 1.0 ha; "hamlet"	
56	Koryfasion: Beylerbey	4	D 4 PRAP I1	F 4	EH II(-III?), MH- LH IIIB, DA(?), G	HAB; 3.52 ha; "large village"	
57	Koryfasion: Charatsari	5	D 5	F 5	MH (Late)-LH I	CEM; tholos	
		11	D 11	F 6	MH, LH II–IIIA2,		
46	Tragana: Viglitsa	Korre	es 1976b, [·] PRAP I6	1980;	LH IIIC Late, DA II	CEM; tholoi	
45	Tragana: Voroulia	12	D 12	F 7	MH, LH I, LH III(A–B)	HAB (small); "hamlet"(?)	
14	Romanou (village)		PRAP I4		EH, MH–LH IIIC, G, A, C, H, R	HAB; 2.5 ha (minimum); "large village"	
2. Iklaina t	to Myrsinochori						
		46	D 46	F 17	EH, MH, LH		
52	Iklaina: Traganes		KAP T; se		I–IIIB, H, M	HAB; 12.0 ha; "town"	
53	Iklaina: Dendra**	47	D 47 IKAP D	F 17	LH III(A–B)	HAB; 2.0 ha (Dendra); "village"	
ı	Iklaina (village)		IKAP I		LH III(A–B)	HAB; 1.3 ha (minimum); "village"	
V	Iklaina, Kataimiaas		IKAP K		1 H III(A B)		
K	Iklaina: Katsimigas	Cos	mopoulos :	2002	LH III(A–B)	HAB; 1.5 ha; "village"	
54	Iklaina: Panayia	50	D 50	F 18	LH I–IIIB	HAB; 1.1 ha; "village"	
504	-		mopoulos :			HAD: 1.9 ho: "villogo"	
50A	Platanos: Merzini	51	D 51	F 15	MH, LH IIIB	HAB; 1.8 ha; "village"	

Table 2. Register of Mycenaean sites in Messenia. *Includes PRAP nos. B1–B5 and sites of cemeteries near palace. **Site no. 53 on Map 2 indicates the position of IKAP D, which includes Gouvitses; see commentary below.

Site	a N	MME	GAC	MG	D 4		
Number	Site Name		r Survey Citations		Dates	LH Type and Extent	
2. Iklaina	to Myrsinochori, cont.						
51A	Platanos: Lambropoulou Piyi	49	D 49	F 14	LH	HAB (small); "farm"(?)	
49	Papoulia (village)	53	D 53	F 16	LH II–III(A–B), A, C	HAB, CEM (small); tholoi; "hamlet"	
48	Myrsinochori: Routsi	54	D 54	F 13	MH, LH I(?), LH II–IIIA1	CEM; tholoi	
	NA main a de ani (cilla ca)		IKAP M		LH I/II, LH	LIAD. 2.0 b - : "I : :II "	
M	Myrsinochori (village)	Cos	mopoulos :	2004	III(A–B)	HAB; 3.0 ha; "large village"	
3. The Sh	ores of the Bay of Navar	ino and F	ylokambo	os Plain			
61	Petrochori: Palaiokastro (ancient Koryphasion)	9	D 9	F 10	LH IIIA-B, DA II, C, H, R, M	HAB; 1.4 ha; "village"	
01	Cave of Nestor	10	D 10	F 20	N, EH, MH, LH III(A–B), C		
00	Detro de ario Valide e la dia	8	D 8	F 21	EH II, MH, LH I–	OFM: #b-sl	
60	Petrochori: Voidhokoilia	Korres 1	976b, 1977	7a, 1978b	II, LH IIIB	CEM; tholos	
59A-E	Petrochori: Osmanaga lagoon	7	D 7	F 22	EH II, LH III (A–B), DA II, H	HAB (several locations)	
58	Yialova: Palaiochori	42	D 42	F 23	LH III(A-B)	HAB; 5.4 ha (maximum; see commentary below); "large village"	
58A	Pyla: Vigles	41	D 41	F 24	EH II(?), MH(?), LH III(A-B)	HAB; 2.5 ha; "large village"	
58C	Pyla: Elitsa	39	D 39	F 25	LH III(A–B)	HAB; 0.5 ha; "hamlet"	
58B	Pyla: Kokkinorachi	40	D 40	_	MH(?), LH(?)	HAB; 0.3 ha; "farm"(?)	
64	Schinolakka: Kokkinia	43	D 43	F 26	MH(?), LH III(A–B)	HAB; 1.3 ha; "village"	
63	Pylos: Vigla and Midhen	44	D 44	F 27	N(?), LH III(A–B)	HAB, CEM; 0.3 ha (minimum); tholoi; "farm"(?)	
72E	Pylos: Hagios Nektarios	45	D 45	F 28	LH, H	HAB; 0.7 ha; "hamlet"	
66A	Kynigou: Arvanitsa	38	D 38	MG, p. 142	LH, R(?)	HAB, CEM(?); 0.5 ha; "hamlet"	
4. From th	ne Pylos District to the Co	entral Pla	teau				
	Koukounara: Katarrachi	35	D 35	F 29	MIL 1111	HAD OFM COL ###	
65*	& Gouvalari, Akona, Polla Dendra, Livadhiti	F	 Rap 19-11		MH, LH I–IIIC, G, A, C, H	HAB, CEM; 0.9 ha (hilltop; sherds also on slopes); 7 tholoi; "village"	
054*	Stenosia: Palaiochorafa	36	D 36	F 30		HAB, CEM; large building; 3	
65A*	& Londariti, Phyties	Р	RAP I14–I	16	LH II–IIIB	tholoi; villa(?)	
055	Kato Kremmydhia:	34	D 34	F 36	LH I/II–III(A–B),	HAB, CEM; extent unclear;	
65B	Fourtzavrysi, Kaminia	ŀ	Corres 198	0	C, H	mounds with small tholoi; "hamlet"(?)	
66	Chandrinou: Koumbe	37	D 37	F 31	LH III(A–B)	HAB, CEM; 1.0 ha; 2 mounds; "village"	

Table 2, cont. Register of Mycenaean sites in Messenia. *On Map 2, the positions of the sites listed under 65 and 65A are located only approximately and schematically.

Site	Cito Name	MME	GAC	MG	Deter	III Toma and Frederic
Number	Site Name		r Survey Citations		Dates	LH Type and Extent
4. From th	ne Pylos District to the Ce	entral Pla	teau, con	t.		
67	Chandrinou: Platania	33	D 33	F 32	N, LH III(A–B), A, C	HAB, CEM; 0.4 ha (minimum); tholos; "hamlet"
67A	Chandrinou: Kissos	32	D 32	F 33	MH(?), LH I/II–III(A2–B)	CEM; mound
68	Mesopotamos: Chilia Choria	28	D 28	F 35	MH(?), LH III(A–B)	HAB; 0.5 ha (minimum); "hamlet"
68A	Soulinari: Tourlidhitsa	29	D 29	F 34	LH IIIA(1?), H	CEM; small tholos
69	Mesopotamos: Velevouni	27	D 27	F 37	LH IIIA2–B	HAB, CEM; 1.0 ha; mound; "village"
75B	Romiri: Avisos	31	D 31	F 38	LH III(A–B)	HAB; 1.0 ha; "village"
69A	Chatzis: Barberi	26	D 26	F 39	MH(?), LH III(A–B), C, M	HAB; 1.8 ha; "village"
69B	Vlachopoulo: Agrilia, Drakorachi	25	D 25	40	MH(?), LH IIIA1–2	HAB CEM; 1.0 ha (minimum); tholos; "village"
69C	Vlachopoulo: Stamati Rachi	24	D 24	F 41	MH, LH	HAB; 0.6 ha; "hamlet"
69D	Metamorphosis: Hagia Sotira	23	_	<i>MG</i> , p. 143	LH(?), M	HAB(?)
41B	Metaxadha: Kalopsana	22	D 22	F 42	MH, LH I–II,	HAB; 3.0 ha; "village"*
	Motaxadria: Naiopodria		PRAP A2		LH III(A–B), G	T. J. J. O. O Ha, Villago
5. The We	est Coast from Vromoner	i to Mara	thopolis			
G3	Vromoneri: Pigadhia		PRAP G3		MH(?), LH I/II, LH IIIB	HAB(small); "hamlet"(?)
38	Gargaliani: Kanalos	15	D 15	F 43	MH, LH I/II, LH IIIA2–B, G, A, C, H, R, M	HAB; 1.9 ha; "village"
D2	Gargaliani: Megas Kambos		PRAP D2		MH(?), LH I/II, LH IIIB-C	HAB (small); "hamlet"(?)
KYPARISSIA	to Gargaliani (Map 3)					
6. Gargali	ani to Filiatra					
39A	Floka: Panitsa	17	_	<i>MG</i> , p. 143	LH(?), M(?)	HAB(?)
37C	Gargaliani: Koutsoveri	16	D 16	F 44	MH, LH III	HAB; 2.1 ha; "village"
	_		PRAP K2	- 10		
37	Gargaliani: Ordines	57	D 57 PRAP K1	F 46	EH II, LH I–II, LH IIIA–B, G	HAB; 2.1 ha; "village"
37A	Valta: Hagios Pandeleimon	58	D 58	F 50	N(?), LH, C, H	HAB, CEM(?); 1.8 ha; tomb(?); "village"
	-	59	D 59	F 50		HAB, CEM(?); 0.8 ha (minimum)
37B	Valta: Kastraki		PRAP K3		MH, LH III(A–)B	tombs(?); "hamlet"(?)
22P	Valta: Hagia Paraskevi	60	D 60	F 47	MH, LH III	HAB; 1.2 ha; "village"

Table 2, cont. Register of Mycenaean sites in Messenia. *According to PRAP, it is unlikely that this site was large in LH III (Davis et al. 1997, 423, 426 n. 97, 441).

Site		MME	GAC	MG	_ ,		
Number	Site Name		r Survey Citations		Dates	LH Type and Extent	
6. Gargalia	ani to Filiatra, cont.						
22N	Filiatra: Kastraki	61	D 61	F 51	LH	HAB; 1.8 ha; "village"	
	Filiatra:	63	D 63	F 48			
22L	Hagios Christophoros	Papac	onstantino	u 1989	MH, LH II–IIIB	HAB; 4.5 ha; "large village"	
22M	Korovileika (village)	62	D 62	F 49	LH	HAB; 0.4 ha; "farm"	
22K	Filiatra: Hagios Ioannis	64	D 64	F 52	LH III	HAB; 2.7 ha; "large village"	
		65	D 65	F 53			
22F	Filiatra: Stomion		1985, 1986 ki and Cha		EH, MH, LH III(A–B)	HAB; 1.2 ha; "village"	
7. Betwee	n Filiatra and Kyparissia						
22J	Chalazoni: Palaiochori	66	D 66	MG (under F 54)	LH	HAB; 0.4 ha; "farm"	
22H	Faraklahda: Dhesi	67	_	MG (under F 54)	LH(?)	HAB; "farm"(?)	
22E	Armenioi: Manna	68	D 68	F 54	LH IIIB	HAB (small); "farm"	
22G	Spilia: Bridziba	69	_	<i>MG</i> , p. 143	LH(?), C(?), H(?)	HAB(?); "farm"(?)	
22	Kyparissia: Kastro	70	D 70	F 200	MH, LH III(A–B), A, C, H, R, M	HAB; 1.0 ha* (minimum); "village'	
MYCENAEAN	SITES IN MESSENIA (MAP	1)					
8. From K	yparissia to the Neda Ri	ver					
22A	Mouriatadha: Elliniko	201	D 201	F 202	LH IIIB	HAB,CEM; 3.0 ha; tholos; "large village"	
22C	Vyrses: Palaiophrygas	72	D 72	F 201	MH(?), LH	HAB; 0.9 ha; "hamlet"(?)	
22D	Sellas: Nekrotapheion	202	D 202	F 204	MH, LH	HAB; 1.2 ha; "village"	
220	Myrau Pariataria	200	D 200	F 205	MH, LH I–IIIB,	HAB, CEM; 2.0 ha; 3 tholoi;	
22B	Myrou: Peristeria	Korres 1	976a, 1977	b, 1978a	C, H	"village"	
		_	_	_			
23H	Glykorizi: Pyrgaki	Chatzi-	EAY; Spiliopould	ou 1991	LH	CEM; tholos(?)	
23E	Glykorizi: Hagios Ilias	239	D 239	F 205	N(?), MH, LH III(A–B)	HAB; 2.2 ha; "village"	
21F	Kephalovrysi: Tsoukedha	240	D 240	F 237	MH(?), LH	HAB; 1.0 ha (minimum); "village"	
21E	Sidherokastro: Sphakoulia	241	D 241	F 238	MH, LH III(A–)B	HAB; 2.5 ha; "large village"	
21D	Vanadha: Kastri	242	D 242	F 239	MH(?), LH III(A–B)	HAB; 1.0 ha; "village"	
21C	Phonissa: Aspra Litharia	243	D 243	F 240	MH, LH (III?)	HAB; 0.6 ha; "hamlet"	

Table 2, cont. Register of Mycenaean sites in Messenia. *Interior of medieval fort ca. 1.0 ha; area of hill much larger. See commentary below for estimated size of Mycenaean settlement.

Site	0	MME	GAC	MG		
Number	Site Name		r Survey Citations		- Dates	LH Type and Extent
9. From th	ne Neda River to Zachard				•	
21A	Tholon: Hagios Dhimitrios	244	D 244	F 241	LH III(A–B), C/H	HAB; 0.6 ha; "hamlet"
21	Lepreon: Hagios Dhimitrios	245	D 245	F 242	N(?), EH II, MH, LH II–III(A–B)	HAB; 1.5 ha; "village"
20	Kakovatos: Nestora	300	B 94	D 70	MH, LH I–IIIB, C, H, R	HAB, CEM; 1.8 ha (minimum; recent excavations suggest large size); 3 tholoi; "large village"(?)
19A	Zacharo: Kaimena Alonia	301	B 93	D 69	LH III(A–B)	HAB (small); "hamlet"(?)
10. The M	lethoni Area					
72B	Palaionero: Hagios Konstandinos	74	D 74	F 55	MH, LH	HAB; 0.3 ha; "farm"
72A	Mesochori: Koutsoveri	75	D 75	F 56	LH, M	HAB; 1.0 ha; "hamlet"
72	Mesochori: Gdhiti Rachi	76	D 76	_	MH	MH burial(?)
72D	Methoni: Nisakouli	80	D 80	F 57	MH, LH III(A–B)	HAB; 0.4 ha (minimum)*; "village"(?)
73	Phoinikounta: Hagia Analipsis	79	D 79	F 58	EH II, MH, LH I/II, LH III(A–B), G, C,H, R	HAB, CEM; 2.5 ha (minimum)**; tholos(?)
73A	Exochikon: Hagios Nikolaos	78	D 78	F 59	MH, LH III(A2–B)	HAB, CEM; 0.8 ha; tholos; "hamlet"
73B	Kaplani: Vigla	EAY;	— Arapoyianr	— ni 1993	LH IIA	CEM; tholos
72C	Kato Ambelokipoi: Astrapokaimeno	77	D 77	F 60	LH, M	HAB; 0.8 ha; "hamlet
11. The K	oroni Area					
74	Charakopeio: Demotic School	109	D 109	F 111	LH I/II(?), LH III(A–B), C, H, R	HAB, CEM; 1.5 ha (minimum); tholos; village
74B	Falanthi: Panoria	108	D 108	F 112	LH	HAB; 0.6 ha; "hamlet"
74C	Chrysokellaria: Hagios Athanasios	111	D 111	F 114	LH, C/H	HAB; 1.5 ha; "village"
74A	Hagios Isidhoros: Lioftakia	110	D 110	F 113	MH(?), LH(?)	HAB(?); 1.0 ha (maximum); "hamlet"(?)
75	Longa: Kaphirio	107	D 107	F 110	MH(?), LH III(A–B), DA II, A(?), C, H	HAB; 1.8 ha (minimum); "village"
75C	Longa: Palaiokastro	106	D 106	<i>MG</i> , p. 142	N(?), MH, LH(?), M(?)	HAB(?) (small?)
75F	Vigla: Hagios Ilias	105	D 105	F 109	LH III(A–B)	HAB; 1.6 ha; "village"
75D	Mathia: Pyrgaki	104	D 104	F 108	MH(?), LH	HAB; 0.3 ha (minimum); "hamlet"(?)

Table 2, cont. Register of Mycenaean sites in Messenia. *Most of the site has been eroded by the sea (Kraft and Aschenbrenner 1977). **Promontorty much eroded by the sea.

Site		MME	GAC	MG			
Number	Site Name	Other Surveys and Citations			Dates	LH Type and Extent	
12. Petalio	dhi, Rizomylo, and the "F	ive River	s" District				
76	Rizomylo: Nichoria	100	D 100	F 100	N, EH II(?), MH, LH I–IIIB, LH IIIC(?), DA I–III, G, A, C, H, R, M	HAB, CEM; 5.0 ha; tholoi, ChTs; "large village"	
71	Neromylo: Viglitsa	101	D 101	F 103	LH, A	CEM; tholos	
75A	Kalochori: Hagios Ilias	103	D 103	F 107	MH, LH III(A–)B	HAB; 1.1 ha; "village"	
75E	Pera: Karkano	102	D 102	F 106	MH(?), LH	HAB; 1.8 ha; "village"	
76A	Velika: Kokora Trypa	113	D 113	F 102	N, LH IIIB	cave	
76B	Velika: Skordhakis	112	D 112	F 101	MH, LH I/II, LH III(A–B)	HAB; 1.0 ha; "village"	
760	Dorot \ /:-1!t	114	D 114	F 104	MILLILIUA D	HAB, CEM; 1.5 ha; tholos;	
76D	Dara: Viglitsa	EAY; P	arlama 197	73–1974	MH, LH IIIA–B	"village"	
		_	_	_			
76K	Diodia: Pournaria	Chatzi-	EAY; Spiliopoulo	u 1992a	LH IIIA1–B	CEM; tholos	
705	0, 1, 0, 1	115	D 115	F 105		HAB, CEM; 1.5 ha; tholos;	
76F	Strephi: Galarovouni	Vikatou 1992b			EH II, LH IIIA2–B	"village"	
34	Margeli: Koutsoveri	116	F 116	F 130	MH, LH I–II,	HAB; 2.2 ha (maximum);	
	a.go routos ron		PRAP L1		LH III(A–B)	"village"	
36	Flesiadha: Kouphiero	117	D 117	F 131	N, LH I/II, LH III(A–B)	cave	
36A	Flesiadha: Misorachi	73	D 73	F 131	LH	HAB; 1.2 ha; "village"	
		118	D 118	F 131A			
35	Kephalovrysi (Chalvatsou): Kastro, Palaiomylos	Chatzi-S	EAY; Spiliopoulo 2007	u 1998b,	MH(?), LH I/IIA, M	HAB(?)* (Kastro), CEM; tholos (Palaiomylos)	
		_	_	_			
76H	Manesi: Mavrolongos	Chatzi-	EAY; Spiliopoulo	u 1992c	LH	CEM; tholos	
76G	Trikorpho: Kato Katarrachi	121	D 121	F 127	MH, LH I/II(?), LH III(A–B)	HAB; 1.5 ha; "village"	
35A	Dhraina: Koutsoveri	119	D 119	F 129	MH, LH III(A–B)	HAB; 1.0 ha; "village"	
		_		_			
76J	Aristomenis: Trani Sykia	EAY; Chatzi-Spiliopoulou 1988; Arapoyianni 1996a		LH III(B-C)	CEM; ChT		
35B	Manganiako: Paliambela	120	D 120	F 128	MH(?), LH IIIA2–B	HAB; 2.6 ha; "large village"	
13. The P	amisos Valley (South)		I.	I			
76E	Madhena: Hagios Konstandinos	131	D 131	F 115	LH III(A2–B), R	HAB(?), CEM; ChT	

Table 2, cont. Register of Mycenaean sites in Messenia. *Bronze Age sherds.

Site		MME	GAC	MG		
Number	Site Name	Other Surveys and Citations			Dates	LH Type and Extent
13. The P	amisos Valley (South), c	ont.				
77F	Mavromati: Panayia	129	D 129	F 116	EH II, LH III(A–B)	HAB; 0.5 ha; "hamlet"
77	Karteroli: Hagios Konstandinos	128	D 128	F 117	LH III(A–B)	HAB, CEM; 1.5 ha (minimum); 9 ChTs
77C	Eva: Nekrotapheion	125	D 125	F 118	MH, LH III(A–B), C	HAB; 1.5 ha; "village"
77A	Aristodhemion: Paliambeles	123	D 123	F 119	LH III(A–B), M	HAB; 0.3 ha; "farm"
77B	Lambaiana: Tourkokivouro	122	D 122	F 120	EH II, LH III(A2–B), G	HAB (small)
78	Aithaia: Ellinika	137	D 137	F 121	EH II, MH, LH IIIA1–C, DA II,	HAB, CEM; 6.0 ha (minimum);
70	(ancient Thouria)		EAY*		G(?), A(?), C, H, R, M	tholos; 24 ChTs; "town"(?)
77E	Aris: Mesovouni	126	D 126	F 122	MH(?), LH I/II(?), LH III(A–B)	HAB; 1.6 ha; "village"
78A	Plati: Petrogephyra	135	D 135	F 124	LH III(A–B)	HAB (small)
78B	Pidhima: Hagios Ioannis	136	D 136	F 123	LH I/II, LH III(A–B), A(?), C, H	HAB; 4.0 ha; "large village"
78C	Hagios Floros (village)	134	D 134	F 125	MH/LH or both, C, H(?)	HAB(?); 1.2 ha; "village"
78D	Hagios Floros: Kamaria	132	D 132	F 126	EH II, LH III(A–B), H(?)	HAB; 1.5 ha; "village"
79B	Thouria: Hagios Athanasios	139	D 139	<i>MG</i> , p. 143	MH, LH(?)	HAB; 0.6 ha; "hamlet"
14. The N	orthern Mani		1			
79	Kalamata: Kastro (ancient Pherai)	142	D 142	F 132	LH III(A–B), G, A, C, H, R, M	HAB; 3.0 ha**; "large village"(?)
79A	Kalamata: Tourles	141	D 141	F 132	EH II, MH(?), LH III(A2–)B, C	HAB, CEM; 2.0 ha; "village"
79E	Artemisia: Volimnos	138	_	_	LH(?), DA II, G, A, C, H	HAB(?)***; 2.0 ha (maximim)
79C	Perivolakia: Sola	140	D 140	F 133	MH(?), LH III(A–B), H	HAB; 0.8 ha; "hamlet
79D	Verga: Kastraki	143	D 143	F 134	MH(?), LH III	HAB; 1.0 ha; "village"
80A	Mikra Mandinia: Hagios Yeoryios****	144	_	<i>MG</i> , p. 143	LH(?), C, H(?)	HAB(?) (small)
80	Pigadhia: Kokkinochomata	145	D 145	F 136	MH(?), LH I/II(?), LH III(A–B), DA(?)	cave
81	Kambos: Zarnata	146	D 146	F 137	LH (IIB-III), C, H, R, M	HAB(?; LH center probably Zarnata hill), CEM; tholos

Table 2, cont. Register of Mycenaean sites in Messenia. *Fifteen ChTs excavated by EAY (see commentary below). **Size inferred from LH pottery found on south slope of Kastro; see commentary below. ***Probably not LH; important site in DA II. ****The gold objects (LH I?) found ca. 7 km to the east, and listed under *GAC* D 144 and *MG* F 135, are probably the cache of a tomb robber.

Site		MME	GAC	MG		LILTime and Fotont
Number	Site Name	Other Surveys and Citations			- Dates	LH Type and Extent
14. The N	orthern Mani, cont.					
82	Kardhamili: Kastro (ancient Kardamyle)	147	D 147	F 138	N(?), EH(?), MH(?), LH III(A–B), DA II, G, A, C, R, M	HAB; 3.7 ha (as estimated in MG); "large village"
924	Drogotion, Latomian	_	_	_	- 111	CEM: ChT
82A	Proastion: Latomion	EAY; A	rapoyiann	i 1995b	LH	CEM; ChT
83	Stoupa: Ancient Leuktra	148	D 148	F 139	MH(?), LH III(A–B), C, H, R, M	HAB, CEM; 5.0 ha (maximum; as estimated in MG); ChT; "large village"
83A	Hagios Dhimitrios: Vigla	149	D 149	F 140	LH III(A–B)	HAB; 4.5 ha (maximum); "village"
84	Koutiphari: Svina (ancient Thalamai)	150	C 49	E 45	LH III(A–B), DA(?)	HAB (small); "hamlet"(?)
15. The P	amisos Valley (Central)					
32B	Katsarou: Hagios Ilias	207	D 207	F 228	MH(?), LH	HAB; 1.2 ha; "village"
32A	Siamou: Palaiochori	208	D 208	F 229	MH(?), LH III(A–B)	HAB; 0.3 ha; "farm"
32	Loutro: Karatsadhes	209	D 209	<i>MG</i> , p. 142	MH, LH(?)	MH cemetery
33A	Kalyvia: Pano Chorio	210	D 210	F 230	LH III(A–)B	HAB, CEM; 2.2 ha (minimum); ChT; tholos(?); "village"
32C	Meligala: Hagios Ilias	206	D 206	F 224	MH, LH III(A–B)	HAB; 0.4 ha; "farm"
32D	Stenyklaros: Kato Rachi	205	D 205	F 225	LH III(A–B)	HAB; 4.5 ha (maximum); "village"
28C	Neochori: Kounoura	204	D 204	F 226	LH III(A-B)	HAB; 1.5 ha; "village"
28B	Konchilion: Kastro	203	D 203	F 227	MH, LH III(A–B), H(?)	HAB; 1.5 ha (minimum); "village"
29	Polichni: Hagios Taxiarchos	212	D 212	F 231	MH(?), LH I(?), LH IIIB, C, M	HAB; 2.5 ha (maximum); "village"
THE NORTH	HERN END OF THE PAMISOS	/ALLEY (M	AP 5)			
16. The N	orthern End of the Pamis	sos Valle	y			
31C	Dhiavolitsi: Loutses	214	D 214	F 232	MH(?), LH III(A–)B	HAB, CEM; 4.5 ha (minimum); ChT; "village"
31B	Parapoungion: Hagios Yeoryios	213	D 213	F 233	MH, LH III(A–B)	HAB; 0.6 ha; "hamlet"
31A	Agrilovouno: Hagios Nikolaos	215	D 215	F 234	MH, LH III(A–B)	HAB; 4.5 ha (minimum); "village"
30	Mandhra: Chasna	217	D 217	F 235	EH(?), MH(?), LH III(A–B)	HAB, CEM; 0.5 ha (minimum); tholos; "hamlet"
		216	D 216	F 236	MH(?),	HAB; 4.5 ha (maximum);
31	Kato Melpia: Krebeni	V	ikatou 199	2a	LH III(A–B), A(?), C, H, M	"large village"

Table 2, cont. Register of Mycenaean sites in Messenia.

Site	0" 1	MME	GAC	MG	.		
Number	Site Name		r Survey Citations		Dates	LH Type and Extent	
THE SOULIN	MA VALLEY (MAP 4)						
17. The S	oulima Valley						
28	Vasiliko: Xerovrysi	220	D 220	F 221	LH IIIA, A, C, H	CEM; tholos	
28E	Kastro: Kastro tou Mila	219	D 219	F 222	MH(?), LH, M	HAB; 1.0 ha (maximum); "village"	
28D	Mila: Profitis Ilias	218	D 218	F 223	MH(?), LH	HAB; 0.8 ha; "hamlet"	
28F	Mila: Ramovouni or Lakkathela	_	D 221	F 220	EH(?), MH, LH IIIA2–C, DA I, G, A, C	HAB (small); "hamlet"(?)	
28A	Vasiliko: Veizi	221	_	<i>MG</i> , p. 143	MH(?), LH(?)	HAB(?) (small); "farm"(?)	
27	Vasiliko: "Malthi-Dorion"	222	D 222	F 217	MH, LH I–IIIB, DA I–II, C	HAB; 1.2 ha; "village"	
27A	Malthi: Gouves	223	D 223	F 218	MH(?), LH IIIA2(?), LH IIIB-C, DA I, G(?), A(?)	HAB, CEM; 3.0 ha; 2 tholoi; "large village"	
27B	Kokla: Rachi Chani	224	D 224	F 219	EH II, MH, LH III(A–B), H, R	HAB; 1.0 ha (minimum); "village	
24C	Aetos: Morlou	228	D 228	F 213	MH, LH III(A–B), LH IIIC(?)	HAB; 1.5 ha; "village"	
	Aetos:	226	_	_			
26	Hagios Dhimitrios (A)	Hope S	impson an 2006, 55	d Hagel	LH(?), C, H, R	HAB(?)	
26A	Aetos: Hagios Dhimitrios (B)	227	D 227	F 214	MH(?), LH III(A–B)	HAB; 0.4 ha; "farm"	
26B	Aetos: Palaiokastro	225	D 225	F 215	MH, LH, M	HAB; 0.8 ha; "hamlet"	
24A	Dorion: Kondra	231	D 231	F 216	MH(?), LH I/II(?), LH III(A–B), H(?)	HAB; 1.8 ha; "village"	
24D	Psari: Metsiki	_	_	_	LH I–II, LH III, C	CEM; tholos	
240	r san. Ivietsiki	EAY (see	comment	ary below)	LITI-II, LITIII, O	CLIVI, IIIOIOS	
24E	Psari: Sintilithi	EA'	│ ─ Y; Chatzi 1	982	LH	HAB (small)	
25	Chrysochori: Panayia	232	_	<i>MG</i> , p. 142	LH(?), H(?)	HAB(?)	
25A	Chalkias: Ailias*	EAY; V	ikatou 199	5, 1996	LH II–IIIB	CEM; 3 tholoi	
18. The E	astern End of the Kypari	ssia Rive	r Valley				
24	Ano Kopanaki: Stylari	233	D 233	F 211	MH, LH II, LH III(A–B), C, H	HAB; 1.0 ha; "village"	
23F	Ano Kopanaki: Bafano	238	D 238	F 212	LH	HAB; 0.9 ha; "hamlet"	
23	Kopanaki: Akourthi	234	D 234	F 206	MH, LH IIB-IIIB	CEM; 3 tholoi	

Table 2, cont. Register of Mycenaean sites in Messenia. *Shown on Map 1.

Site Number	Site Name	MME GAC MG Other Surveys and Citations		Dates	LH Type and Extent	
18. The Ea	astern End of the Kypari	issia Rive	r Valley, c	cont.		
23D	Kamari: Gouva	236	D 236	F 209	LH III(A–B), M	HAB, CEM; 1.2 ha; tholos; "village"
004	I/ 1: D 1 :	235	_	_	111(0) D(0) M(0)	
23A	Kopanaki: Paradami		see Ch. 3		LH(?), R(?), M(?)	HAB(?)
23B	Kamari: Mesovouni	237	D 237	F 210	MH, LH III(A–B)	HAB; 1.6 ha; "village"
24B	Kopanaki: Chalikia	229	D 229	F 207	LH, R(?)	HAB; 0.3 ha; "farm"
23C	Artiki: Rachi Gourtsia	230	D 230	F 208	MH, LH III(A–B)	HAB; 0.8 ha; "hamlet"

Table 2, cont. Register of Mycenaean sites in Messenia.

Commentary on the Register of Mycenaean Sites

The Distribution of the Mycenaean Sites in Messenia

Although exploration is still far from complete, it is already clear that the main concentrations of the Mycenaean settlements were in the Pylos district and, to a lesser extent, the Pamisos and Soulima valleys. As was to be expected, most of the settlements were in or around the valleys and coastal plains. The most fertile land here has been described by Lukermann as the "great rectangle" formed by the lower land surrounding the central range of mountains between western and eastern Messenia (McDonald and Hope Simpson 1972, 134). The "arms" of this "great rectangle" are also the main lines of communication: on the west along the coast from Pylos to Kyparissia; on the north from Kyparissia via the Soulima valley to the Upper Pamisos (or Stenyklaros) plain (Maps 1, 5); on the east from the Stenyklaros plain down the Pamisos valley to the Messenian Gulf; and on the south from the gulf via site 76 (Rizomylo: Nichoria) across the central plateau to Pylos. As has now been further documented by PRAP, there was a marked increase in the population of the Pylos district in the LH III period, apparently accompanied by a migration into the district from less fertile inland areas, such as Metaxadha and Margeli (Davis et al. 1997, 421-424).

The Pylos District (Map 2)

The Pylos district is mainly composed of ranges of low marl hills, separated by ravines and streams, which converge on the coastal plain and the Bay of Navarino. The district is bounded on the north and east by Mt. Aigaleon (modern Mt. Hagia) and the central plateau between eastern and western Messenia. In the Register the district has been subdivided into five sections (nos. 1–5, below), more or less in accordance with the natural divisions of the terrain. The district has been more thoroughly searched than any other part of Messenia.

1. The Palace of Nestor and Its Environs

This division is roughly defined as the territories of the modern town of Chora and the villages of Abelofytos, Tragana, Koryfasion, and Romanou. It evidently comprised the core area of the "Kingdom" of Mycenaean Pylos, including the (presumed) port at Romanou (see, below, Ch. 3). The district is naturally separated from the Bay of Navarino by the intervening (original) alluvial flood plain to the north of the Osmanaga lagoon (Zangger et al. 1997, 557–559; cf. Kraft, Rapp, and Aschenbrenner 1980), and from the Iklaina plateau to the southeast by ravines and rough terrain. On the northeast, the Mt. Aigaleon range forms a

natural boundary, as does the barren escarpment that stretches southward from Gargaliani on the northwest.

From the results of their intensive survey of most of the Ano Englianos ridge, PRAP estimated that the Palace and its "Lower Town" probably occupied at least 18 ha in the LH IIIB period, and at least part of this area may then have been surrounded by a circuit wall (Davis et al. 1997, 427-430; Zangger et al. 1997, 604-613). The former UMME estimate, "minimum 6.5 ha" (MME, 264), had been based solely on the results of Blegen's excavations. There was probably also a substantial Mycenaean community at site Chora: Volimidhia (41) (see, below, Ch. 3), where there were at least 30 chamber tombs, ranging in date from LH I to LH IIIB; but from Marinatos's limited excavation of the settlement remains here it was not possible to determine its original size (cf. GAC, 135; MG, 116). A large Mycenaean settlement (at least 2.5 ha in LH III) was discovered by PRAP at Romanou (I4), adjoining the (putative) cothon harbor on the west coast (Davis et al. 1997, 465-467; Zangger et al. 1997, 613-623; Zangger 1998c). The wide spread (3.52 ha) of LH III surface sherds at Koryfasion: Beylerbey (56) (Davis et al. 1997, 423) may be partly due to the very severe erosion at this site, as evidenced both by the PRAP magnetometer survey (Davis 1998c, 63) and by the lack of preserved architecture, as demonstrated by Marinatos's excavations (Messenia III, 149). Conversely, the comparative scarcity of LH III surface sherds at site I4 (Romanou) may be the consequence of the frequent activity at the site in later periods.

2. Iklaina to Myrsinochori

This district is a natural geographical unit to the east of and adjoining that of the Palace, but is separated from it by two ravines. The intensive survey of ca. 17 km² by the IKAP team included the territories of the villages of Iklaina, Platanos, and Myrsinochori (Cosmopoulos 2006b, esp. figs. 5, 6). Among the "new" Mycenaean sites discovered by IKAP are site M, a large site near Myrsinochori probably associated with the tholos tombs at Myrsinochori: Routsi (48), and three other "village" sites, D, I, and K, near Iklaina (Cosmopoulos 2006b, 220–222). The scant remains recorded by

UMME at Iklaina: Gouvitses were apparently on the slope below the IKAP site Iklaina: Dendra (53), as noted in Table 2 above (see *MG*, 117 under F17 for corrections to the account of Gouvitses in *Messenia* I, 241). At site K (Katsimigas) the amount of slag suggests metallurgy.

At the main Mycenaean center of the district, Iklaina: Traganes (52), IKAP measured the sherd spread, including the central mound, as ca. 12 ha (Cosmopoulos 2006b, 220). The previous UMME measurements observed in 1959, "c. 200 m N-S by c. 150 m E-W" (Messenia I, 241), were those of the mound only. Since then, almost the whole Iklaina plateau has been planted with trees (mostly olives), as seen in Cosmopoulos's photographs (Cosmopoulos 2006b, figs. 7 [view of the Iklaina plateau from the east] and 8 [view of the mound at Traganes from the west]). Only full excavation could reveal how much of the 12 ha of the Traganes sherd spread was built over in Mycenaean times (as in the case of Rizomylo: Nichoria [76], discussed below); but Cosmopoulos's excavations within the mound have already revealed part of an important LH IIIA2-IIIB complex above MH and LH II-IIIA1 strata, and remains of a circuit wall (Cosmopoulos 2006a, 2008, 2009).

3. The Shores of the Bay of Navarino and Pylokambos Plain

The site of Palaiokastro (Petrochori: Palaiokastro [61]), the ancient Koryphasion, dominated the two northern entrances to the Bay of Navarino, the Sikia channel between Palaiokastro and the island of Sphaktiria and the channel into the Voidhokoilia bay to the north of Palaiokastro. Both of these channels were open to the sea in Mycenaean times. The shallow Osmanaga lagoon would have been accessible then to small boats via the Voidhokoilia bay (Pl. 1A), provided that a channel was kept open at the northern end of the bay (Loy and Wright 1972, 44-46; cf. Zangger et al. 1997, 557-559). The few and sporadic Mycenaean sherds found along the northern shore of the lagoon, at site 59A to Petrochori: Osmanaga lagoon (E), suggest perhaps only a row of fishing huts here.

On the east side of the Bay of Navarino, the Mycenaean sites 58, 58A, 58C, and 63 form a semicircle around the coastal Pylokambos plain. By

far the largest settlement in this group is Yialova: Palaiochori (58), a prominent low hill at the northwestern end of the Dapia ridge, which marks the northeastern border of the plain. Mycenaean sherds, including LH IIIB fine ware, were plentiful on the summit and upper terraces of the hill, over ca. 1.8 ha, and were more sparse on the lower western terraces for an additional ca. 3.6 ha (total extent ca. 300 m N-S x ca. 120 m E-W; see MME, 272, correcting Messenia I, 242), in all a spread of ca. 5.4 ha (maximum). This site, at the corner between the northern and eastern shores of the Navarino bay (Pl. 1B), dominates these shores, and it also lies directly above the main route to the south from the Palace. Pyla: Vigles (58A), although smaller (ca. 2.5 ha), is also a large "village," and Pylos: Vigla (63), at the southwestern edge of the plain, may also have been of "village" size, including its original western portion, which has since fallen into the sea (as the existing cliff indicates: Messenia I, 244).

4. From the Pylos District to the Central Plateau

This region, especially the territories of the modern villages of Koukounara, Stenosia, and Chandrinou, was quite densely inhabited from LH I to LH IIIB. Of particular importance are the many tholos tombs and burial mounds in the vicinity of Koukounara, especially the Gouvalari tholoi, first excavated by Marinatos in 1958 to 1961 and reexamined by Korres in 1974 and 1975. The main Mycenaean settlement here appears to have been at Koukounara: Katarrachi (or Katarrachaki) (65), ca. 1.2 km east of Koukounara, on the western side of the Potami tou Arapi. It was only partly examined by Marinatos. The site was evidently a major center from MH to LH IIIB (Messenia I, 244; Messenia III, 150; GAC, 140). The Katarrachi hilltop measures only ca. 120 m north to south by ca. 70 m east to west, but the sherd spread observed in 1960 also extended down the western and southern slopes, and a pit at the southern end of the hill contained fine LH IIIA-B pottery. Further traces of Mycenaean habitation were found at Gouvalari, to the east of the ravine. At Stenosia: Palaiochorafa (or Palaiochoria) (65A), Marinatos's long trench revealed

foundations of a large and complex building of at least nine rooms. The finds here included a complete bathtub and fragments of others, remains of pithoi, and much fine and coarse ware pottery, apparently LH IIIB in date (GAC, 140). The small tholos tomb (diam. ca. 3.50 m), ca. 50 m to the north, contained at least 17 burials, some small LH III pots, and a sealstone. This site at Palaiochorafa thus also appears to have been a center of some importance, although the Koukounara settlement is marked as probably more important by the number of tombs in its vicinity. (A detailed map of the Koukounara-Stenosia area is needed, although partial clarification has been provided by PRAP [Davis et al. 1997, 393, fig. 2, sites I9-I16].) The UMME original estimates of the positions of these sites (Messenia I, 244; Messenia III, 150; MME, 270) should be corrected. In particular, Katarrachi (65; PRAP II0) is ca. 1.2 km east of Koukounara, on the western side of the Potami tou Arapi, and Palaiochorafa (65A; PRAP I16) is apparently ca. 1.5 km southeast of Koukounara and ca. 1.2 km northeast of Stenosia.

Farther inland, on the western edge of the central plateau, there was a concentration of Mycenaean sites (nos. 67, 67A, 68, 68A, 69) on or near the route to eastern Messenia (cf. *Messenia* I, 246, ill. 11). These include a small tholos tomb and several burial mounds. Some other sites (69A, 69B) were found in the northern part of the central plateau (Lukermann's "Central Plateau Core Area"); but large parts of the interior here may have been covered in forest (Lukermann 1972, 159).

5. The West Coast from Vromoneri to Marathopolis

Most of this coastal strip has now been investigated by PRAP, who have added two "new" small Mycenaean sites, G3 near Vromoneri, and D2 near Marathopolis and adjacent to Gargaliani: Kanalos (38). The Kanalos site, which was of "village" size, was reexamined in detail by PRAP (as site D1; see Davis et al. 1997, 467–469), who reported new finds of many periods, but also much destruction since the UMME 1959 examination (*Messenia* I, 236–237, ill. 7). The remains of walls on the "acropolis" cannot be dated (no claim for Cyclopean walling was made in the UMME report, although some

blocks on the southeast side were marked as "prehistoric walling?" on Hope Simpson's sketch plan; see *Messenia* I, 236–237, ill. 7). In an official inspection of the site, Chatzi-Spiliopoulou (1988, 145) recorded good MH, LH, and Classical (C) surface pottery, including a sherd with ripple pattern (LH I/ II) and pieces from LH IIIA kylikes. But she also reported that the mound recorded by UMME to the southeast of the site no longer existed.

Kyparissia to Gargaliani (Map 3)

6. Gargaliani to Filiatra

This southern portion of Lukermann's "Kyparissia-Filiatra core area," as defined in MME, is its most fertile part (Lukermann 1972, 161). It has been only partially explored, with the exception of a small strip on the southern side of the Langouvardos stream that was intensively surveyed by PRAP (Davis et al. 1997, 393, fig. 2). This strip included Gargaliani: Ordines (37; PRAP K1), and PRAP also reinvestigated the twin Valta sites 37A and 37B, on the northern and southern banks of the Langouvardos, respectively. The protagonists of PRAP were impressed by the Ordines site in the coastal plain, although, with a sherd spread of 2.1 ha, it was apparently only of "village" size (see, below, Ch. 3). Most of the Mycenaean sites discovered in the region were situated on the edges of the prominent limestone escarpment that borders the eastern side of the plain, extending from south of Gargaliani to east of Filiatra. Sites 37C, 22P, and 22L on the western edge of the escarpment were particularly well placed on a limestone base overlooking the more fertile land of the coastal plain to the west. On the eastern side of the escarpment and near springs, sites 37A, 37B, 22M, and 22N were all on the edge of the broad inner plateau between the escarpment and the foothills of Mt. Aigaleon to the east. (These foothills and the vicinities of Christiani and Plati have not yet been explored.) Much of the plateau may have been forested in Mycenaean times; there were wide tracts of woodland here in 1967, especially along the road from Filiatra to Christiani.

By far the largest settlement found in this region is Filiatra: Hagios Christophoros (22L) (Pl. 2A), which lies on the escarpment above the eastern border of the coastal plain, overlooking the richest farmland in the Filiatra district (Pl. 2B), and also controlling the main route to the inner plateau. At Hagios Christophoros the area of the Mycenaean sherd spread (as observed in detail in 1967; cf. Messenia III, 135) added up to ca. 300 m north to south by ca. 150 m east to west (i.e., 4.5 ha). The sherds were mainly of excellent quality and included many from LH IIIB kylikes and stemmed bowls. The site was later examined by Papaconstantinou (1989, 107), who reported LH II-IIIB sherds over an area of ca. 3 ha and traces of fortifications just behind the cliff that forms the western border of the site (Pl. 2A, above the steps leading down to the chapel). Another Mycenaean large "village" in the Filiatra district was Filiatra: Hagios Ioannis (22K; 2.7 ha), which would have been on or near the main road through the Filiatra plain to Kyparissia, since it straddles the modern main road (Messenia III, 135). The site at Filiatra: Stomion (22F), at 1.2 ha, was only of "village" size, but there may have been a small harbor here at the mouth of the Filiatra River (Messenia III, 133–134, ill. 4), where small craft could be protected in the cove. Trial excavations here (Kokotaki and Chatzi 1985; Chatzi 1986a) revealed wall remains and Early Helladic (EH), MH, and LH pottery.

The main route to the north from the Pylos district was presumably via the Filiatra plain. But the line up of the Mycenaean sites, 37A and 37B at Valta, and 22N and 22M, along the eastern edge of the Gargaliani-Filiatra limestone escarpment, also suggests an interior route to the north from the Palace, more direct than the coastal route via Gargaliani: Kanalos (38) and Gargaliani: Ordines (37).

7. Between Filiatra and Kyparissia

From the north of the Filiatra River and site 22F (Stomion) to Kyparissia, the coastal plain in the northern part of Lukermann's "Kyparissia-Filiatra Core Area" is much less fertile than the southern part, the Filiatra district (Lukermann 1972, 161; cf. *Messenia* III, 133–134). Only a few small prehistoric sites (nos. 22J, 22H, 22E, 22G) were found

in this northern part, and diagnostic Mycenaean sherds at sites 22J and 22E only. Further and more intensive search may yield more such sites, but a major Mycenaean center here seems unlikely.

Mycenaean Sites in Messenia (Map 1)

8. From Kyparissia to the Neda River

Kyparissia would have been the first reliable harbor on the coast to the north of Pylos (Pl. 3A). The Mycenaean settlement at Kyparissia: Kastro (22) may have been quite large, although Mycenaean sherds were scarce on the hill itself. The walls of the medieval castle enclose an area ca. 150 m north to south by ca. 65 m east to west. A few MH and LH sherds were found here, mainly on the northern slope, but a larger extent seems to be indicated by the Mycenaean pottery discovered during excavation for the foundations of a new house at the western foot of the Kastro (Messenia III, 133). The most important Mycenaean site in the district, however, may have been Mouriatadha: Elliniko (22A). It appears that this settlement was both founded and occupied only in LH IIIB. It is marked by its considerable size, ca. 3.0 ha, with a miniature version of a megaron, rooms decorated with painted plaster, fortifications (Pl. 3B), and a small tholos tomb (diam. 4.80 m; Pl. 3C). The site overlooked the Kyparissia River valley and Myrou: Peristeria (22B) (Pl. 4A), and it also lies at the northern end of the pass into the center of western Messenia behind Mt. Aigaleon. The mountainous area around this pass has not yet been explored, with the exception of the small site 22D at Sellas ("saddle"). Two of the sites found in the lower part of the Kyparissia River valley were quite large, Myrou: Peristeria (22B; 2.0 ha) and Glykorizi: Hagios Ilias (22E; 2.2 ha), and another, Glykorizi: Pyrgaki (23H), seems to have had a tholos tomb. The hill country between the Kyparissia and Neda valleys has not yet been fully searched, but some sites have been found in the fertile Avlon valley, including the large "village" at Sidherokastro: Sphakoulia (21E; 2.5 ha). The Neda River, with its deep gorge, would be a natural choice for a frontier demarcation, but much more exploration is needed here also.

9. From the Neda River to Zacharo

The region to the north of the Neda River is now generally regarded as probably beyond the bounds of the "Kingdom of Pylos." The most important Mycenaean site found in this district is Kakovatos: Nestora (20), explored by Wilhelm Dörpfeld in 1907-1908, and once believed to have been the site of Nestor's Palace. It was evidently a large "village," as is now indicated by the intensive survey begun in 2009 by the German Institute of Archaeology under the direction of Birgitta Eder (University of Freiburg; see Morgan et al. 2010, 51-52). But its importance may have been in the early Mycenaean period, to which the three large tholos tombs belong (GAC, 101-102). The site at Lepreon: Hagios Dhimitrios (21), although an impressive and well-situated acropolis (Messenia I, pl. 76c), was apparently only of "village" size (1.5 ha) in the LH period.

10. The Methoni Area

The Mycenaean sites found in Lukermann's "Methoni Core Area," as defined in MME, are not numerous or impressive, although Methoni: Nisakouli (72D), now an islet, was evidently once larger and part of a promontory subsequently eroded by the sea (Kraft and Aschenbrenner 1977). The large "village" site of Phoinikounta: Hagia Analipsis (73; ca. 2.5 ha) was also once considerably larger before similar erosion by the sea (Messenia I, 247, ill. 12). The Phoinikounta site, which apparently had a tholos tomb, seems marked as the Mycenaean "capital" of the region. A tholos tomb at Exochikon: Hagios Nikolaos (73A) was destroyed in an illicit excavation, from which part of a LH IIIB stirrup jar was recovered, but the Mycenaean settlement here was only of "hamlet" size. The small early Mycenaean tholos tomb later investigated by the Greek Archaeological Service at Kaplani: Vigla (73B) is a reminder that the interior here has not yet been explored (cf. Lukermann 1972, 157). The district is comparatively fertile, with the exception of the "badlands" in the vicinity of the two ravines that converge about 4 km to the north of Phoinikounta (see, below, Ch. 3).

11. The Koroni Area

The lower ground in the Koroni–Longa coastal strip, although not very extensive, is exceptionally fertile, and mostly covered with olive orchards and vineyards. Of the Mycenaean sites discovered in and around these lowlands, the most important are the "village" sites at Charakopeio: Demotic School (74) with its tholos tomb, probably the "capital" of the district, Longa: Kaphirio (75), and Vigla: Hagios Ilias (75F). In *MME*, Lukermann (1972, 157) outlines the various divisions of the district and the routes within it. Although the coastal strip itself has been relatively well explored, most of the territories of the villages in the higher ground to the west were not even briefly visited by UMME.

12. Petalidhi, Rizomylo, and the "Five Rivers" District

At Petalidhi (ancient Korone), with its natural harbor, Mycenaean habitation would be expected. But both on the acropolis and in the lower town later remains are so abundant (cf. Valmin 1930, 177-179) that any traces of BA occupation may have been obscured or destroyed (none were found in an intensive search in 1957; cf. Hope Simpson 1957, 249). It has been established, however, that the main Mycenaean center of the district was Rizomylo: Nichoria (76) (Nichoria I-III), where it has been estimated that at least 4 ha and up to 5 ha of the site was built over in LH (MME, 280; cf. McDonald 1975, 135; Lukermann and Moody 1978, 87). Nichoria was the hub of communications both from western to eastern and northern to southern Messenia. It apparently also had a small harbor (now a lagoon) at the mouth of the Karya River, located ca. 2 km to south-southeast of the site. This harbor, like the (putative) harbor at Romanou (discussed above) for the Palace, also appears to have been of cothon type (McDonald and Rapp 1972, 257-258, fig. 16.1; Kraft, Rapp, and Aschenbrenner 1975, esp. 1203; Rapp, Aschenbrenner, and Kraft 1978, 17-25). Traces of disused roads between Pylos and Rizomylo were explored

by UMME, particularly in the eastern sector between Kazarma and Rizomylo (Messenia II, 240-241, fig. 2, pl. 70; cf. McDonald 1964). The highest of the four roads mapped by Fant in this sector was preserved for a length of about 1 km. It was cut into the hillside and supported by a retaining wall of large irregular blocks and boulders, and in places it was as much as 3.0 m high. It had an average gradient of 5.9% and a maximum gradient of 12%. It was characterized by Fant as "obviously not built for modern transportation" (Fant and Loy 1972, 25-28, fig. 2-5). There was no evidence for its date, and it may have been reused or even repaired at some time early in the modern period. Nevertheless, as Fant and Loy concluded in MME, "if a Late Bronze Age road ran between Kalamata and Pylos, it would logically fall in this location" (1972, 27; cf. Hope Simpson and Hagel 2006, 161).

As Lukermann points out in MME, the "Five Rivers" district, stretching far inland to the north and northwest of Rizomylo, is "an extremely fertile area, with a more than adequate water supply" (1972, 159-160). The district has been only partly explored. Some Mycenaean sites found in this interior region, both by UMME and by the Greek Archaeological Service, were recorded in MME Register A. Members of the Service have since reported Mycenaean tombs at others (here incorporated as nos. 76H, 76J, and 76K), and at 35 and 76D. Among the sites discovered are the "large village" (ca. 2.6 ha) at Manganiako: Paliambela (35B) in the northern part of the district and a LH IIIB-C chamber tomb at Aristomenis: Trani Sykia (76J). Other sites were small, although some also had small tholos tombs (35, 71, 76D, 76K, 76F, 76H). The district as a whole would be a very suitable target for intensive survey building on the preliminary study of its southern part by Lukermann and Moody in Nichoria I (1978).

13. The Pamisos Valley (South)

This district was defined by Lukermann in *MME* as the "Pamisos Core Area" (1972, 160–167). The southernmost part of the present Pamisos valley was partly marsh or sea in Mycenaean times (Kraft, Rapp, and Aschenbrenner 1975, 1205–1207). The routes from west to east across the Pamisos valley would have then been farther north

than the modern main road and railway from modern Messini (Map 1, 3 km east of Madhena [76E]) to Kalamata. Lukermann (1972, 160-167) identifies one probable Mycenaean route (by ford across the Pamisos River) between Karteroli: Hagios Konstandinos (77) and Aris: Mesovouni (77E). The name Petrogephyra ("stone bridge") for Plati: Petrogephyra (78A) (McDonald and Rapp 1972, 243) suggests another ancient crossing point there, farther upstream. The number (at least nine) and sizes of the chamber tombs at the Karteroli site demonstrate its importance, although it has not been possible to estimate the approximate size of the Mycenaean settlement here (sherd spread at least 1.5 ha; see Hope Simpson 1957, 246; Messenia I, 249-250). The other Mycenaean sites found on the western edge of the Pamisos (77F, 77C, 77A, 77B) were all apparently small, the largest being Eva: Nekrotapheion (77C) at ca. 1.5 ha. Farther west, no Mycenaean sites have yet been found on or near the drainage divide between the Pamisos valley and the easternmost of the "five rivers," with the exception of Madhena: Hagios Konstandinos (76E) (cf. Lukermann 1972, 160). But exploration of this area has been minimal (cf. Messenia I, 254-255, "West Side of Pamisos Valley").

On the eastern side of the Pamisos valley the preeminent Mycenaean site is Aithaia: Ellinika (78) (Pl. 6A), with a settlement at least 6 ha in extent, and at least 24 chamber tombs. The main habitation appears to have been on the upper western slopes of the southern part of the long north to south ridge (Hope Simpson 1966, 121-124, fig. 6), where good quality LH IIIA2 and LH IIIB fine wares were abundant over an area at least 400 x 150 m. It was not possible to determine whether or not the Mycenaean settlement had extended to the northern end of the ridge, which was later occupied by the historic fortified town of Thouria (currently being explored by Arapoyianni and Greco). The tholos tomb (not yet dated or fully excavated), located on the lower western slope ca. 200 m to the west of the Mycenaean settlements above, had a finely constructed stomion (Pl. 7A). In the upper slopes of the Ellinika ridge, mainly on its eastern side, many chamber tombs had been cut into the soft rock. Most of the 15 recently excavated tombs (all previously robbed) were of large size (esp. nos. 6 and 15, which had chambers 6.0 x 7.0 m and 6.90 x 7.10 m, respectively) and had impressive *dromoi* and *stomia*. The pottery recovered from the tombs was mainly LH IIIA2 and LH IIIB, although LH IIIA1 was found in one tomb and four LH IIIC Early pots in another (Chatzi-Spiliopoulou 1989, 1992b, 1998a, 1999; Arapoyianni 1995a, 1996b, 1997, 2000).

On this eastern side of the valley there was another large "village" (ca. 4 ha) at site Pidhima: Hagios Ioannis (78B) and "villages" at Hagios Floros: Kamaria (78D) (ca. 1.5 ha) and Aris: Mesovouni (77E) (ca. 1.6 ha). This eastern part of the valley, consisting mainly of low hills between the Pamisos River and the foothills of Mt. Taygetos, is exceptionally fertile. The UMME team did not have sufficient time to explore the region adequately. In MME, Lukermann identified some specific areas where more Mycenaean sites are to be expected: "in the Arfara area above Pidhima and leading to the Poliani pass"; "in the Asprochoma-Antikalamos area towards the Nedhon gorge"; and "between Aris-Plati and Ayios Floros . . . on the ridge and lower hills facing into the Pamisos-Pidhima water courses" (Lukermann 1972, 160-161).

In general, and especially in the case of the lower parts of the Pamisos plain, the Mycenaeans may have had less difficulty in tilling (without ironshod plows) the looser soil of the Pliocene terraces bordering the plain than the thick alluvial loam in the plain itself, where there was also the problem of drainage (Lukermann 1972, 160–161).

14. The Northern Mani

The northern part of the eastern coast of the Messenian Gulf, from Kalamata to Platsa and farther south, is based mainly on limestone that extends from Mt. Taygetos. Near the head of the gulf, in the Kalamata area and as far south as Kambos, there are some Pliocene deposits interspersed with the limestone; but to the south of Kambos the limestone and the accompanying terra rossa predominate. With the exception of Kambos: Zarnata (81), with its tholos tomb (Pl. 7B), the Mycenaean settlements found in the district are on or near the coast. But Mycenaean sherds were among the contents of a deposit in a collapsed cave at Pigadhia: Kokkinochomata (80), situated far inland above

the Sandava gorge; Mycenaean settlements may have existed in other interior regions, especially in the territories of the Gaitzes villages to the east of Kambos, where a Classical and later fortified site was found at Hagios Ilias near Brinda (Valmin 1930, 182–195; cf. Hope Simpson 1966, 115–116). Apart from this site, this region and that of the upland villages of Exochikon and Tseria, to the northeast of Kardhamili, have not yet been explored.

Of the Mycenaean sites found in the northern Mani, the most important was probably that of Kalamata: Kastro (79) with Kalamata: Tourles (79A) (Pl. 6B). Because of later construction on the Kastro and the development of the town of Kalamata, it is naturally difficult to find traces of Mycenaean habitation on the Kastro itself. But on the hill of Tourles, ca. 500 m to the northeast, Mycenaean sherds, including good LH III, were spread over an area of ca. 2 ha, and there were remains of at least three collapsed Mycenaean chamber tombs built into the upper terraces of the hill. Four terraces down, there were wall remains, probably prehistoric. It appears that the hill was the site of both a Mycenaean cemetery and a Mycenaean settlement (Hope Simpson 1957, 242-243; 1966, 116-117). No certainly Mycenaean sherds were found within the enceinte of the Medieval Kastro itself, but, during the cutting of a water channel across a street ca. 100 m to the south of the Kastro walls, some sherds from LH III bowls and cups were recovered, together with much Roman or later pottery and a few Archaic (A), Classical, and Hellenistic (H) pieces (Messenia II, 237; cf. Hope Simpson 1966, 116 n. 20). The location of these Mycenaean sherds supports the probability that the Kastro was the center of the Mycenaean settlement. That the Kastro was a major Mycenaean site is, of course, probable on general grounds, since this limestone outcrop was chosen as the site of a fortress not only in the Medieval period, but also in historic times (for the identification of Kalamata as the historic Pherai, see Lazenby and Hope Simpson 1972, 86, 93-94, 96). The area enclosed by the Medieval walls is quite large, ca. 250 m northeast to southwest by ca. 120 m northwest to southeast (Hope Simpson 1957, 242), suggesting a minimum of ca. 3 ha for a (putative) Mycenaean settlement on the Kastro hill. But the Mycenaean sherds found ca. 100 m beyond the Kastro walls suggest a larger area, perhaps ca. 5 ha.

Elsewhere in the Kalamata region, small Mycenaean settlements have been discovered at Perivolakia: Sola (79C) and Verga: Kastraki (79D). Another is suspected at Mikra Mandinia (80A), but no certain evidence was obtained here, perhaps because traces were obscured by later remains (*Messenia* I, 255, under [n]; *Messenia* III, 160–161).

At Kambos: Zarnata (81) the only Mycenaean remains found are those of the tholos tomb (Pl. 7B) and its contents, including the famous lead statuettes (Tsountas 1891; cf. Hope Simpson 1957, 236-239, with references). Although no certainly Mycenaean sherds have been found on the Zarnata Kastro itself, two diagnostic sherds from Tsountas's excavation dump outside the tholos tomb are from a LH II/IIIA stemmed bowl and a LH IIIA or LH IIIB deep bowl, respectively (Messenia I, 251; cf. Hope Simpson 1966, 114). At Kardhamili: Kastro (82) (ancient Kardamyle) a revised estimate of the spread of Mycenaean surface sherds is ca. 3.7 ha (MG, 133), indicating a large "village." The polygonal walls on the northwestern side of the Kastro (Pl. 7C) may be late fourth century or Hellenistic (cf. Valmin 1930, 199-202, fig. 41). The Mycenaean settlement on the acropolis hill of Stoupa: Ancient Leuktra (83) was probably of comparable size (max. 5.0 ha). There was apparently a Mycenaean chamber tomb (subsequently ruined) at its northeastern foot (Hope Simpson 1957, 233–234). Another robbed chamber tomb, also apparently Mycenaean, found more recently, at Proastion: Latomion (82A) (quarry) nearby (Arapoyianni 1995b, 184), may perhaps also be related to the site at Stoupa. Some smaller Mycenaean sites (79C, 79D, 83A) were found in the district, mainly near the coast, in the course of the UMME extensive survey. But much more work is needed here.

15. The Pamisos Valley (Central)

This district is the southern part of Lukermann's "Steniklaros Core Area" (1972, 162). The few Mycenaean sites found here by UMME—28C, 32, 32A, 32B, 32C, 32D, and 33A—are in the belt of low hills between the lower (southern) and upper (northern) parts of the Pamisos valley. (The upper part of the valley is the Stenyklaros plain, the northern end of which is shown on Map 5.) The sites are on the southern and southeastern edges of

the plain, and, except for the possible site at Loutro: Karatsadhes (32), none have yet been found in the southern part of the Stenyklaros plain itself. Of the sites discovered in this central group, none are particularly outstanding, but Kalyvia: Pano Chorio (33A) had an observed sherd spread of ca. 2.2 ha, LH IIIB pots and ornaments from a destroyed tomb, and a possible tholos tomb. It also lies on the main route to the north along the east side of the Pamisos valley.

The Northern End of the Pamisos Valley (Map 5)

16. The Northern End of the Pamisos Valley

This is the northernmost part of Lukermann's "Steniklaros Core Area" (1972, 162). The sites found in this district are on or near the northern and northwestern edges of the northern end of the Pamisos valley (alias the Stenyklaros plain), except for Dhiavolitsi: Loutses (31C) which is in the plain itself. The site at Kato Melpia: Krebeni (31) (Pl. 4B), at the end of the northwestern side valley, had a wide Mycenaean sherd spread in 1963, up to ca. 4.5 ha, but the distribution may have been partly due to the major activity on the site in the Classical and Hellenistic periods, marked by wall remains and sherds over an extent of ca. 18 ha. The site is rather remote, and may not have been as important in LH IIIB as site 31C (Dhiavolitsi), where there was a sherd spread of at least "village" extent and a LH IIIB chamber tomb. But search of this region has been both slight and selective.

The Soulima Valley (Map 4)

17. The Soulima Valley and 18. The Eastern End of the Kyparissia River Valley

The Soulima valley is a natural basin, surrounded by high hills and drained by the Kyparissia River on the west and by the northwestern branch of the Mavrozoumenos River on the east. The valley is the northern corridor between western and

eastern Messenia, corresponding to the southern route from the Pylos district to the lower Pamisos valley via Rizomylo. At the eastern end of the Soulima valley was the MH-LH fortified "village" of Vasiliko: "Malthi-Dorion" (27) (Pl. 5A), totally explored by Valmin (Valmin 1938). The western end of the valley is marked by the low watershed, near Kopanaki, between the Mavrozoumenos and Kyparissia rivers. The valley is "a rich protected area" (Lukermann 1972, 162), but, as Lukermann remarks here, "although the area seems selfcontained, its position makes its relations with other areas of paramount importance." Control of this region would have been essential to overall control of Messenia. The soil in the valley is not generally of the highest quality, being mainly the terra rossa associated with limestone, but fertility here would have been greatly enhanced by the higher than average rainfall and the abundant springs. The valley also has plenty of good pasture land.

The Soulima valley has been well searched, as compared to most other regions of Messenia (except for the Pylos district). The tholos tombs discovered by Valmin, at Kopanaki: Akourthi (23), Malthi: Gouves (27A), and Vasiliko: Xerovrysi (28), are all along the east to west main route through the valley. Those at sites 23 and 28 were early Mycenaean, like the tholos tombs found recently by the Greek Archaeological Service at Psari: Metsiki (24D) and Chalkias: Ailias (25A) (on Map 1). The sites found by UMME in their extensive and selective survey were numerous, but all were of small size, mostly "hamlets" or small "villages" (24A, 24C, 26A, 26B, 27B, 28A, 28D, and 28E in the Soulima valley, and 23B, 23C, 23D, 23F, 24, and 24B in the upper [eastern] part of the Kyparissia River valley). In the early Mycenaean period there appear to have been several centers in the valley, as indicated by the numerous tholos tombs, the largest of which appears to be Tholos I at Psari: Metsiki (24D) (diam. 9.0-10.0 m, dromos length ca. 6.0 m), with fine LH I and LH II pottery (Chatzi 1981, 1982, 1983, 1985, 1986b).

The most important site in the Soulima valley in the LH IIIB period was Malthi: Gouves (27A), where two tholos tombs and part of a settlement (estimated extent ca. 3.0 ha) were excavated by Valmin (Valmin 1938, 1953). The pottery recovered, both from the tombs and from the settlement,

was mainly LH IIIB, with some probably LH IIIC and some possibly later. Only a small part of the settlement was excavated, uncovering parts of two buildings (or perhaps parts of one large building). Of the 14 rooms revealed, two were fairly large (Room 9: 7.0 x 4.5 m; Room 10: 5.5 x 4.5 m). The diameters of the two tholos tombs were 6.85 and 5.75 m, respectively (cf. the Mouriatadha tholos tomb, 4.80 m diam., and the Nichoria tomb, 6.60 m diam.). The largest of the Malthi tombs, Tholos Tomb I, was quite carefully constructed (see, e.g., Pl. 5B). Although the style of its masonry is far inferior to that of the tholos tombs at Ellinika (Pl. 7A) and Kambos (Pl. 7B), it is considerably better than that of the Mouriatadha tomb (Pl. 3C). It is probable that the two Malthi tombs belonged to the Gouves settlement (27A), since the site of "Malthi-Dorion" (27), on the Ramovouni ridge above the tombs, appears to have been only partly inhabited in LH III (Valmin 1938, 321).

The Development of Mycenaean Civilization in Messenia

We have little evidence from Messenia for the Neolithic (N) and earlier periods. Even EH sites are relatively rare in Messenia, and most appear to have been small (GAC, 126; cf. Davis et al. 1997, 417-419, 430-434). A major expansion in the MH period, at least from MH II onward, is evidenced by a great increase in the number of sites. Many of these appear to have been new foundations and in territory apparently not inhabited previously or only sparsely inhabited. Whereas the EH sites were mainly in lowland districts, especially the coastal, the MH settlements were more widespread and extended into most parts of the interior, often on less fertile or even "marginal" land (GAC, 126). In western Messenia, PRAP have recorded several sites that appear to have originated in MH, some of which may have begun or expanded in MH III to LH I, when the first tholos tombs known in Messenia were constructed at Koryfasion: Charatsari (57) and Koukounara: Gouvalari (65) (Davis et al. 1997, 419-421). From the pollen samples collected by PRAP in the Osmanaga lagoon on the northern shore of the Bay of Navarino, it is evident that during the MH period considerable deforestation had occurred in the Pylos

district. By about the end of LH II, "pines were destroyed completely and deciduous oaks dropped to half their previous values" (Zangger et al. 1997, 584–592). This deforestation is, of course, attributed to increased cultivation in the vicinity.

For the early Mycenaean periods, LH I-LH IIIA1, the evidence comes mainly from the numerous tholos tombs of these dates found in Messenia by Marinatos, Korres, and others (mainly members of the Greek Archaeological Service). Although early Mycenaean surface sherds have now been found at several settlements, especially in the Pylos district (e.g., at Koryfasion: Beylerbey [57] and Tragana: Voroulia [45]; see Davis et al. 1997, 439-445), few have been investigated by excavation. The main early Mycenaean settlement, on the site of the later "Palace of Nestor" at Ano Englianos, is marked especially by Tholos IV and the "Grave Circle," and by the circuit wall and gateway, both attributed to LH I-IIA (cf. GAC, 128-129; Hope Simpson and Hagel 2006, 52-53, with references). The evidence for the size and importance of the settlement at this time has been further supplemented by the results of the intensive survey by PRAP, in which the spread of LH I-II surface pottery here was recorded as ca. 7.0 ha (Davis et al. 1997, 427–430). All this points to an early expansion of Mycenaean Pylos, and it is likely that by the end of LH IIIA1 it would have included the territories of modern Chora, Koryfasion (including site 56 [Koryfasion: Beylerbey]), Romanou, and Tragana, and the northern shore of the Bay of Navarino, including the Osmanaga lagoon and Voidhokoilia (cf. Davis et al. 1997, 419-421). The early tholos tombs at Koryfasion: Charatsari (57), Tragana: Viglitsa (46), and Petrochori: Voidhokoilia (60) cannot be assumed to indicate independent early Mycenaean centers at their locations. All would have been easily accessible from Pylos, and the farthest is at most two hours distant by foot. Myrsinochori, on the other hand, although quite close to Pylos "as the crow flies," is separated from the Palace ridge by a deep ravine. The two tholos tombs at Myrsinochori: Routsi (48), although small (both with ca. 5.0 m diameters), contained some rich early LH goods. These have been thought to indicate "a dynastic group, quite rich but not of the first rank" (GAC, 145-146). Site M, found in the IKAP survey, at

ca. 3.0 ha, qualifies as a "large village" and seems to have been the settlement to which the Routsi tombs belonged (Cosmopoulos 2006b, 221). Elsewhere in the Pylos district, two other centers may not have come under the control of Pylos until after the LH IIIA1 period. At Iklaina: Traganes (52) excavation and survey have already revealed considerable MH–LH IIIA1 remains, especially the LH II–IIIA1 House B (Cosmopoulos 2008, 2009). Another early Mycenaean center is attested at Koukounara: Katarrachi (65) (cf. *GAC*, 126–127, 139–140), both by settlement remains and by the many tholos tombs around it, especially at Gouvalari (Korres 1974, 1975).

In the rest of Messenia several other early Mycenaean centers have been identified. The most important of these are Myrou: Peristeria (22B) and Rizomylo: Nichoria (76). Although the Peristeria site itself is of relatively small size, ca. 2.0 ha, the tholos tombs within are quite large (with respective diams. of 6.9, 10.6, and 12.1 m), and the fortification wall is up to 2.80 m thick (cf. Hope Simpson and Hagel 2006, 54-55, with references). The Nichoria settlement was already ca. 4.0 ha in extent in LH II (Dickinson 1977, 92), and in LH IIIA1 it had a "megaron" (Unit IV-4A; see Aschenbrenner et al. 1992, 433-439) comparable to "Mansion 2" at the Menelaion (Catling 2009, 32-53, index). The Veves tholos tomb at Nichoria was in use from LH I to LH IIIA2 (GAC, 153). Another early LH center was Vasiliko: "Malthi-Dorion" (27) whose floruit was in late MH to LH II. Although only ca. 1.2 ha in size, it had fortifications, probably LH I or LH IIA in date (Hope Simpson and Hagel 2006, 56-57, with references). Probably associated with "Malthi-Dorion" were the two tholos tombs at Vasiliko: Xerovrysi (28) (Valmin 1927–1928, 190). The excavated tomb (diam. 6.5 m) contained fragments of a LH IIA jar. Among the other Mycenaean tholos tombs in the Soulima valley and vicinity are the three at Kopanaki: Akourthi (23), of which the one excavated (diam. 5.35 m) contained LH IIB and later pottery (Valmin 1927-1928, 206). Early LH centers are suggested both here and at Psari: Metsiki (24D), where the excavated tholos (diam. over 9.0 m) contained fine LH I and LH II pottery. To the north of the Soulima valley, the two small tholos tombs at Chalkias (both with diams, of ca. 4.10 m) had pottery ranging from LH IIA to LH IIIB. Elsewhere in Messenia, early Mycenaean tholos tombs have been excavated recently at Chalvatsou: Palaiomylos (35) (diam. 3.25 m), Diodia: Pournaria (76K) (diam. 4.30 m), and Kaplani: Vigla (73B) (diam. 5.30 m). Not all of these may signify important early Mycenaean centers in their vicinity, but they certainly demonstrate an increase in prosperity and very probably an increase in population above that in the MH period.

Messenia in the LH IIIA2 to LH IIIB2 Periods

Both the numbers of the Mycenaean sites in Messenia and their sizes in the LH IIIA2 and LH IIIB periods fully confirm that this was the time of maximum growth and prosperity in the region, as in most of mainland Greece. Almost all of the early Mycenaean settlements in Messenia seem to have continued into LH IIIA2–IIIB, even Myrou: Peristeria (22B), although this was partly superseded by Mouriatadha: Elliniko (22A). Vasiliko: "Malthi-Dorion" (27) was only partly occupied in LH III, and it was evidently superseded by Malthi: Gouves (27A).

The next most important site in western Messenia, second only to the Palace of Nestor, now appears to have been Iklaina: Traganes (52) (ca. 12 ha). There would also have been a major center in the Koukounara district, probably at Koukounara: Katarrachi (65). Other centers are indicated at Yialova: Palaiochori (58) (ca. 5.0 ha), Filiatra: Hagios Christophoros (22L) (ca. 4.5 ha), and Mouriatadha: Elliniko (22A) (ca. 3.0 ha). In eastern Messenia the main center was evidently Aithaia: Ellinika (78) (at least 6.0 ha in extent, and with a well-built tholos tomb and a cemetery of at least 24 chamber tombs, including several of large size). Probably second in importance would have been Rizomylo: Nichoria (76) (ca. 5.0 ha). There must also have been a major center at Kalamata: Kastro (79) and Tourles (79A), although later activity here has evidently destroyed or obscured most of the evidence. At Karteroli: Hagios Konstandinos (77), the remains of at least nine chamber tombs attest the presence of an important Mycenaean settlement, although the spread of surface sherds could only be observed over ca. 1.5 ha. The extent of the Mycenaean settlement at Malthi: Gouves (27A) appears to have been ca. 3.0 ha, and its importance in LH IIIB is demonstrated both by the two tholos tombs and by the size of some of the rooms excavated by Valmin.

LH IIIC and the Transition to the "Dark Age"

Blegen concluded that the Palace of Nestor was destroyed "at a time when pottery of Mycenaean IIIC was beginning to be made and to displace the wares of IIIB" (Blegen and Rawson 1966, 421). The recent consensus agrees in assigning the destruction to the very end of LH IIIB2, in the phase variously defined as "Transitional LH IIIB2 to LH IIIC Early" (Mountjoy 1997) or "LH IIIC Phase I" (Rutter 1977; Vitale 2006). Apparently there was no subsequent reoccupation of the site in later LH IIIC. Indeed, apart from the Palace and its vicinity, few LH IIIC remains have been found in Messenia. Elsewhere in the Pylos district the only significant LH IIIC Early finds are from some of the burials in chamber tomb K2 at Kokevi (Blegen et al. 1973, 223-237) and from burial B at Tragana: Viglitsa (46) (Coulson 1986, 18-19; cf. Davis et al. 1997, 451-452). In eastern Messenia, at Aithaia: Ellinika (78) a few of the pots from Tomb 14 (Tsangli no. 12) may be LH IIIC Early (Chatzi-Spiliopoulou 1999), as may be some of the sherds found at Malthi: Gouves (27A), both from the settlement and from tholos tomb 2 (Valmin 1938, 1953; cf. *GAC*, 174–175). Finds of this phase are scarce elsewhere in eastern Messenia, and some reported previously are not confirmed (Coulson 1986, 19).

Coulson comments that the lack of any pottery of LH IIIC Middle style in Messenia suggests "some sort of culture break" here between LH IIIC Early and LH IIIC Late (Coulson 1986, 19–21). The revival in LH IIIC Late is exemplified by some of the contents of tombs at Kokkevi and Tragana and by the LH IIIC Late or Dark Age I floor deposit at site Mila: Ramovouni (or Lakkathela; site 28F), followed by some pottery at site Vasiliko: "Malthi-Dorion" (27), a sherd from Koukounara: Katarrachi (65), and the DA I material from Nichoria (Coulson 1986, 12–21). At the Palace of

Nestor, neither a reoccupation in LH IIIC (after the destruction) nor continuity from the Bronze Age can be substantiated (Davis et al. 1997, 451–453).

Mycenaean Sites in Messenia in LH IIIB

The evidence we possess has already shown that most of the known Mycenaean sites in Messenia that were occupied in LH IIIB were not occupied or reoccupied after the "Transitional LH IIIB2 to LH IIIC Early" phase. It is also clear that almost all of the Mycenaean settlements found in Messenia were occupied in LH IIIB, and that this was the period of their maximum expansion. Some settlements, including Mouriatadha: Elliniko (22A) and Malthi: Gouves (27A), appear to have begun in LH IIIB. It cannot be considered as coincidental that most of these LH IIIB settlements apparently did not survive beyond the time of the destruction of the Palace of Nestor at the end of LH IIIB2. It is therefore appropriate that the LH IIIB period should be the focal point for retrodictions, both of the number of Mycenaean settlements that may have existed in Messenia and of the population of Messenia in Mycenaean times. The end of the LH IIIB2 period is, of course, also highlighted by the contents of the Linear B archives of the Palace of Nestor.

The Number of LH IIIB Settlements in Messenia

An attempt was made by Bennet to estimate the number of LH IIIB settlements that it may be possible to find (including those already found) "within the likely territory of the Pylos polity" (i.e., roughly within the bounds of modern Messenia; Bennet 1998b, 134–135). According to Bennet's calculations, the work of UMME in the 1960s had revealed "about 102 sites of Late Helladic IIIB date" in Messenia, of which "only about forty are smaller than 1 hectare in size." On the basis of the results of the PRAP survey in the Pylos district, Bennet (1998b, 134–135) assumed that UMME had

underestimated the number of small sites . . . whereas we might expect smaller sites to make up the largest class of settlements within the overall

settlement hierarchy. PRAP has succeeded in documenting some of these smaller sites and has increased the number of known Mycenaean sites within the area surveyed by about 50 percent. If we apply this factor to the total known sites within the territory of the palace, we arrive at a possible total of about 150 sites that might be observed archaeologically, rather than 102.

It is difficult to follow this calculation. If this low estimate, only about 150 sites, was to be believed. UMME (and all other discoverers of sites in Messenia up to the end of 1968) would be credited with having found about two-thirds (or 68%) of all the LH IIIB sites in Messenia "that might be observed archaeologically" (Bennet 1998b, 134-135). Furthermore, since 1968, about 30 "new" Mycenaean sites have been found in Messenia, some in the intensive surveys by PRAP and IKAP, and some by the Greek Archaeological Service (about nine sites, mainly tombs, investigated in the course of "rescue" excavations). This does not include some sporadic finds of Mycenaean sherds (mainly by PRAP and IKAP), which may be too few to provide definite indications of settlements or tombs. For the IKAP survey, Cosmopoulos warns that some small concentrations of sherds "may be nothing more than off-site artifacts or background noise, results of manuring or remnants of other activities of limited scope" (Cosmopoulous 2006b, 221–222).

The territory covered by the PRAP and IKAP intensive surveys is only part (about a quarter) of the Pylos district, which had already been partly searched "extensively" (principally by Blegen, Marinatos, and UMME). Nevertheless, the number (about 20) of "new" Mycenaean sites found by PRAP and IKAP shows that many more may still be found, even in this relatively well-searched Pylos district. Elsewhere in Messenia, there were many significant "gaps" in the UMME extensive coverage (as pointed out in Ch. 1 and in the Commentary on the Register, above). Over 30% of the terrain in Messenia suitable for human habitation was not even visited by UMME, let alone selectively searched. Before the UMME survey was discontinued at the end of 1968, many other locations had been marked, from study of the aerial photographs and other clues, as candidates for prehistoric settlements (Hope Simpson 1985, 259).

Experience has shown that the use of aerial photographs and other selective techniques employed in extensive survey are most likely to reveal medium-sized or larger sites—i.e., sites over ca. 1.0 ha in extent—rather than smaller sites. Nevertheless, UMME also discovered several small sites (under ca. 1.0 ha), some of which were found by the use of air photographs (MG, 142–144). Indeed, the sherd spreads at about 50% of the Mycenaean sites recorded by UMME, and whose probable extents could be estimated, were smaller than 1.1 ha (Carothers and McDonald 1979, 450). Even in an intensive survey we would expect to discover a greater proportion of the medium-sized and larger settlements that once existed than of the small settlements, because the smaller settlements are more likely to have been completely destroyed or buried and/or to be more difficult to find by surface search alone.

There are some other indicators which may assist us in the attempt at a retrodiction of the numbers and sizes of the Mycenaean settlements in Messenia:

- 1. At least some Mycenaean sites were found in almost all of the districts in Messenia that have been searched.
- 2. About 240 place names occur in the Pylos Linear B documents (Bennet 1998b, 134). These names are all obviously sufficiently important to qualify at least as "postal addresses" (i.e., inhabited locations).
- 3. At the time of the 1961 census, modern Messenia had 282 separate communities (*MME*, 324–327, pocket map 1-1: the Eparchies of Triphylia, Messini, Pylos, and Kalamata). The communities were fairly evenly distributed over this comparatively fertile region (Loy and Wright 1972, 36–46; Van Wersch 1972, 177–187). If we subtract those villages which lie outside the ancient (Roman period) boundaries of Messenia—i.e., beyond the Neda River on the north and the Sandava River on the south (see Map 6)—the number of modern villages "within the likely territory of the Pylos polity" (Bennet 1998b, 134) would be 29 fewer, i.e., 253 rather than 282.

4. An equally wide distribution of settlements in the same area in ca. A.D. 1700 is evidenced by Venetian documents relating to Messenia (Topping 1972, 64–80, pocket map 5-9, table 5-1). For the settlement pattern in ca. A.D. 1800, cf. Lukermann 1972, 149–156, figs. 9-1, 9-2).

With the addition of the "new" PRAP and IKAP sites, and those recently explored by the Greek Archaeological Service, the total number of the Mycenaean sites found in Messenia is now at least 160, of which at least about 130 are known to have been occupied in LH IIIB. About 60 of these 130 sites are classified here as small (under 1.0 ha), either "hamlets" or "farms," in the Register above. From all the indications outlined above it may be deduced that we have probably found no more than up to 60% of the "medium" or larger Mycenaean settlements that it is possible to find in Messenia. A reasonable estimate of the number of these settlements (those over 1.0 ha in extent) that once existed in Messenia would be at least 150 (or more, if we allow for sites destroyed or obscured by activity subsequent to the Mycenaean). Most of the about 60 "small" LH sites found were discovered in "extensive" survey. Since it is rightly claimed that a greater proportion of these small sites would be discovered by intensive survey than by extensive survey, we could perhaps expect that at least 200 "small" LH sites once existed in Messenia.

A figure of about 400 LH IIIB sites that may once have existed in Messenia would be compatible with the modern pattern (as recorded in the 1961 census), with the exception of the modern urban centers (Kalamata, Gargaliani, Filiatra, and Kyparissia) and some of the larger modern villages, such as modern Pylos and Chora. Even the numbers would be compatible, since the modern communities often consist of more than one settlement, in several instances including both an "Ano" (upper) and a "Kato" (lower) settlement.

The Population of Messenia in LH IIIB

The UMME estimate, formulated by McDonald, Hope Simpson, and Rapp (McDonald and Hope Simpson 1972, 128, 141; Lukermann 1972, 154–156), for LH settlements in Messenia was 250

"villages" (minimum) and a minimum population of about 50,000. Carothers and McDonald (1979) subsequently applied a regression analysis, based on a random sample of 68 modern Messenian villages, in order to discover the relationship between site size (as extrapolated from Royal Hellenic Air Force aerial photographs of 1960) and population counts in the 1961 Greek National Census. Carothers and McDonald (1979, 436, cf. 450–452) state:

Since the relationship between site size and site population appears to be fairly strong and since the modern and prehistoric situations had similar size distributions, we felt justified in applying the regression constants of the modern population to an equation containing the size of the prehistoric site in order to predict [i.e., retrodict] the prehistoric population. This procedure yields for the average site [i.e., the average Mycenaean site in Messenia] of 1.53 hectares a population of 140 persons.

Carothers and McDonald also recognized that the Mycenaean settlements, although much smaller than the modern, would have been more densely inhabited. Only a few (about 18) of the Mycenaean settlements investigated are classified as having been large "villages" or "towns," measuring over 2.4 ha in extent. The largest of these are at the sites of the Palace of Nestor, now estimated as ca. 18.0 ha (including the Palace itself), and at Iklaina: Traganes (52), with a sherd spread of ca. 12.0 ha. If we accept the figures calculated by Carothers and Mc-Donald, of a mean site size of 1.53 ha and about 140 inhabitants, the minimum population (for 130 LH IIIB sites) would be ca. 18,200, to which we should add the figures for the much greater populations now attested by the sherd spreads observed in the intensive surveys of the Palace and Iklaina sites, i.e., a further ca. 2,000 inhabitants, for a total of ca. 20,000. However, if the proposition made here were to be adopted—i.e., that at least 150 medium and above and at least 200 small (under 1.0 ha) Mycenaean settlements once existed in Messeniathen a figure of at least 50,000 and up to ca. 60,000 would be calculated for the population of Messenia in LH IIIB. Although this would be confirmation of a "population explosion" (cf. McDonald and Hope Simpson 1972, 141) for this prehistoric period, it would not amount to overpopulation or justify the assumption of any degree of "land hunger" in this fertile region. There are several other indications (some of which are discussed in Ch. 3, below) that much of Messenia in fact remained uncultivated at the time, and that quite large areas were still forested. As Carothers and McDonald remark, "we must instead regard Messenia (apparently one of the most populated Mycenaean kingdoms) as a region where reasonably productive land was still only partially

exploited" (Carothers and McDonald 1979, 450; cf. McDonald and Rapp 1972, 247–248). According to the 1961 census, the population of Messenia was then 211,970. "The agricultural population was 147,564 (70 percent of the total population), working 1,276 sq. km (44 percent of total land area)" (Van Wersch 1972, 178).

The Political Geography of the Kingdom of Pylos

The Mycenaean Documents in Linear B Script

The Mycenaean clay tablets in the Linear B syllabic script differ in some respects from the written records of the ancient Near East. "[T]hey preserve no laws, no literature, no diplomatic or private correspondence" (Shelmerdine 1998a, 89). They consist of administrative inventories, especially concerning numbers and quantities of commodities, taxes, and personnel, at or to and from various locations, or belonging to named places or persons. The tablets found at Pylos in the "Palace of Nestor" are mainly confined to accounts of only one year of a palace administration (i.e., its last year), with occasional references to the previous year for items such as defaults on taxes due. They are categorized as "administrative aides-memoire ... never intended as permanent records" (Shelmerdine 1998a, 89; cf. Docs², 109–117).

The writing was on wet (i.e., damp) clay, which was subsequently left to dry out. The tablets were never intentionally baked, but were accidentally fired by the conflagrations that destroyed the buildings in which they were kept. Any records

intended to be permanent would surely have been written in ink on a more "durable" material, in this case probably parchment or vellum (Hodges 1976, 151), which would have been better suited to the complex and elegant Linear B signs (Docs², 109; cf. Chadwick 1976, 27-28). It would not have been as easy to draw these on clay (for this reason, cuneiform [wedge-shaped] impressions were employed in Mesopotamia [Hodges 1974, 70-71]). At Pylos, 33 "hands" (i.e., of scribes) have been detected, and about 66 at Knossos. Ventris and Chadwick (Docs², 109–110) discuss the probable extent of literacy in Mycenaean Greece; they incline to the view that this literacy was of a restricted or "special" nature (cf. Dow 1954, 108–113, 120–122), appropriate for officials and/or scribes compiling inventories (Chadwick 1976, 24-27), although "Linear B is not intrinsically unsuited to a literary use" (Docs², 109–110; for a more detailed analysis of Linear B archives, see Palaima 2003).

Chadwick has outlined the difficulties encountered by scholars in interpreting the Linear B

documents (1976, 21-33). At Pylos, the tablets were kept in labeled baskets (or some perhaps in wooden boxes), probably placed on shelves along the interior walls of the archive rooms. The fires that destroyed the buildings would have scattered the tablets, many of which were found in pieces, and the archives are incomplete because of the differential preservation of individual tablets or sets of tablets. For instance, while the Pylos o-ka series (discussed below) is apparently complete, in other cases the former existence of missing tablets can only be inferred from those that give totals, or from other similar evidence, and we cannot assume that all of the records were kept in the Palace itself. Naturally, there also remain several problems with the decipherment of the script itself. Not all of the syllables can be transliterated with certainty, and the "spelling rules" (Docs², 42–48) sometimes allow more than one interpretation of a word. But only a few of the ideograms have not vet been securely identified, and in most cases the place names (the main concern below) can be safely recognized as such.

In his brief review of the essays in Galaty and Parkinson (eds., 2007), John T. Killen (2007) discussed the degree of the involvement of the Mycenaean palaces in the economies of the states they controlled, as documented in the tablets. He observed the "astonishing similarities among the centers, as revealed by the tablets" (Killen 2007, 114). According to Killen, the administrative records are "of a virtually identical type," and it appears

that "all Mycenaean palaces organized their tax collection in a highly similar way" (Killen 2007, 114). Galaty and Parkinson (2007b) subsequently reviewed the current discussions concerning the degree of centralization evidenced in the Mycenaean states, as opposed to decentralization (e.g., the "highly centralized" perfume industry at Pylos versus decentralized bronze working). They found "[d]irect management of regional agricultural resources by the palace seems to have been minimal" (Galaty and Parkinson 2007b, 5). Taxation does not seem to have been on a large scale, and "[t]he elite appear to have taken only as much as was necessary to run the palaces" (Galaty and Parkinson 2007b, 5). Nevertheless, the extent of palatial bureaucratic regulation of labor and resources is evidenced by the pervasive interest taken by the Palace in minute details at diverse locations and concerning named individuals of various kinds, e.g., the individual contributors of flax in Nn 831 (Killen 2007). It is clear that the administrative decisions were made by the Palace, which maintained overall control of the goods and personnel involved. The social organization was of a quasi-feudal nature (*Docs*², 119–125, 408–410; but see Killen 1985; 2008), based partly on land tenure and class distinctions, and also involved "religious" obligations (Docs2, 232-269, 443-455). The nature and the scope of Mycenaean palatial administration are well summarized by Shelmerdine (2009; cf. Galaty and Parkinson 2007a, esp. 26-27).

Agriculture and the Economy

Most of the Mycenaean settlements in Messenia were of small or "medium" size, mainly "hamlets" or "villages" (see, above, Ch. 2) and "essentially self-sufficient" as regards basic sustenance (Carothers and McDonald 1979, 451). Of the few "large" settlements (over ca. 2.4 ha in size), most were probably regional centers, both for collecting and distributing surplus produce and for the production of "certain specialized and probably labor-intensive raw and finished goods" (Carothers and McDonald 1979, 451). Some of these large settlements were also centers for administration and taxation.

The Pylos documents provide much of the evidence for Mycenaean agriculture in Messenia. Other indications are given by pollen from the Osmanaga lagoon (discussed in Ch. 2, above), and by animal and plant remains found in excavations, particularly at Nichoria (Shay and Shay 1978; Sloan and Duncan 1978). The overall nature of Mycenaean agriculture has been summarized by Chadwick (1976, 102–133; cf. *Docs*², esp. 129–133, 195–231). The main staples, wheat and barley, are attested in documents listing land holdings, whose sizes are measured by the quantities

of grain seed required for sowing them. Many of these documents concern the district of pa-ki-jane, "apparently the district within which the palace lay" (Chadwick 1976, 110-111; cf. Docs², 232-268, 443–445). Rations for workers (mainly slaves; see Chadwick 1976, 77-83) were also measured in grain; apparently the basic allotment was either 2 units of wheat per month or 3³/₄ units of barley (Chadwick 1976, 109-118; cf. Palmer 1992; 2008). The importance of the olive, the other main staple, is attested in a variety of sources. In addition to the evidence from the Pylos tablets and the stores of olive oil at the Palace itself, olive pits have been found in Mycenaean contexts in excavations (e.g., Shay and Shay 1978, 52–54). Also, the olive pollen from the Osmanaga lagoon "suggests that about 10% of the total surface [in the vicinity] was used for olive cultivation during the Late Helladic III period" (Zangger et al. 1997, 576-595, esp. 589). Their diet was also enhanced by the addition of spices, figs, wine, and honey. As Chadwick notes here, wine may have been "something of a luxury" whereas the rations of the Pylos women slaves included a volume of figs equal to that of grain.

Of the domesticated livestock, the most important and the most common were sheep (cf. Killen

1964), goats, and oxen, and their products: milk, hair, wool, meat, and hides (Docs², esp. 197–200; Chadwick 1976, 126–133). Horses were small and almost always associated with chariots, both as recorded in the tablets and as seen in art (Chadwick 1976, 164-171). Oxen would have been indispensable for heavy work, especially plowing. Pigs were specially fattened at nine major centers in the Kingdom of Pylos (Cn 608, discussed below), presumably for a feast (Docs2, 205-206; cf. Palaima 2008), and no doubt pork would have also been preserved by curing and smoking. Pig bones were almost as numerous as those of sheep and goats in the Nichoria excavation sample (Sloan and Duncan 1978, 60-77, esp. tables 6-1, 6-4). The number of deer bones found in Mycenaean levels at Nichoria is also impressive (Sloan and Duncan 1978, 60-77), and shows that at least part of eastern Messenia was still covered in forest or woodland at this time. In the Pylos district, however, pollen analysis shows that major deforestation had already occurred here by the Mycenaean period (Zangger et al. 1997, 589-592). For animal bones found at the Palace itself, see Isaakidou et al. 2002. Deer are also attested here in tablets Cr 591 and Cr 868, presumably implying some forest or woodland nearby.

The Location of the Kingdom of Pylos

In several publications, Chadwick has reviewed the evidence for the political geography of Mycenaean Pylos in its final year. His analysis has been largely borne out by the recent archaeological discoveries in the field, and therefore still remains a basis for our attempts to retrodict the locations of the "Kingdom" and its named subdivisions. Among the many other scholars who have made major contributions to our understanding of the evidence of the tablets in this respect are the following: Emmett L. Bennett, John Bennet, John Killen, Jean-Pierre Olivier, Thomas G. Palaima, Leonard R. Palmer, Cynthia Shelmerdine, and William F. Wyatt Jr. Chadwick was only able to use the archaeological data concerning Mycenaean sites in Messenia up to 1969 (as recorded in MME, Register A). Since then, in addition to discoveries by the Greek Archaeological Service, we now have data from the work of PRAP (as presented by Davis, Shelmerdine, and Bennet) and of IKAP (under Cosmopoulos), summarized above (see Ch. 2; Maps 1–5). Although the data we possess are obviously incomplete, at least we now have sufficient information, both from the tablets themselves and from the pattern of known Mycenaean sites in Messenia, to enable an attempt to determine the extent of the Kingdom and the probable locations of its "provinces" and their districts (cf. Chadwick 1976, x).

The main arguments, as presented by Chadwick (1976, esp. 35–48) and recently modified by Bennet (1998a, 112–133), make the case for a logical and geographical order of the main "towns" (i.e., centers of districts) involved in the administration of the Kingdom. It is now generally agreed that these districts were all probably within the

area that comprises modern Messenia. The number of the names on the Pylos tablets that may be identified as place names is reckoned to be about 240 (Docs2, 141-150; Chadwick 1976, 68; Sainer 1976; Bennet 1998b, 134; 1999, 135 n. 27). Obviously, this figure is the minimum for the actual number of places in the "Kingdom." Not all of these names need have been of substantial settlements, but presumably all would at least qualify as "postal addresses." Of the known Mycenaean settlements in Messenia, those occupied in LH IIIB (as established by excavation and/or survey) are now estimated to number about 130, of which about 70 appear to have been over 1.0 ha in size (see, above, Ch. 2, under "The Number of LH IIIB Settlements in Messenia"). But there are still large gaps in exploration, even in the "extensive" coverage of Messenia (mainly by UMME), and few areas have been examined intensively. The PRAP and IKAP survey areas comprised only a small fraction of western Messenia, and, apart from Nichoria itself, no area in eastern Messenia has yet been systematically explored. We must also allow that many of the Mycenaean sites, especially the smaller ones, have probably been destroyed or are buried beneath later accumulations, or are simply difficult to find by surface exploration alone. Some of the sites which were probably of "medium" or larger size in Mycenaean times were reoccupied in later periods, e.g., in the Classical and Hellenistic periods at sites 29 (Polichni), 31 (Kato Melpia), and 78 (Ellinika), and by Medieval castles at sites 22 (Kyparissia) and 79 (Kalamata). It does not seem likely that more than

about half of the "medium" or larger (i.e., over 1.0 ha) Mycenaean settlements that once existed in Messenia have been found. Accordingly, if we allow that some of the smaller settlements (e.g., "hamlets," "farms"), under 1 ha in size, may be among those named in the tablets, there is no reason to assume any discrepancy between the numbers of place names on the tablets and the probable number of Mycenaean settlements in Messenia (Bennet 1995, 595; 1998b, 134–138 contra).

The only place name in the Pylos tablets which is securely identified is pu-ro, Pylos itself, which can only be the capital at Ano Englianos, i.e., the Palace and its immediate environs (its accompanying "Lower Town"; Docs2, 141; Chadwick 1976, 40). The place names which can be recognized as such have been variously interpreted (Chadwick 1972, 101-102). They appear to be mainly names of settlements, including major "towns" and/or administrative districts; but some names appear to be of smaller locations or even of geographical features (e.g., some in the o-ka ["coastguard"] series, discussed below). If we are correct in assuming that some of the territory of the "Kingdom" had been recently acquired (i.e., within the LH IIIA2 and LH IIIB periods), then we should expect a mixture of older and newer names. Some of the names, especially of major districts in the Further Province, are in adjectival form, and may have been "coined" by the Pylian bureaucracy in the manner of names given to English places by the Norman conquerors (see, below, "The Origins of the Kingdom").

The Two "Provinces"

Several documents demonstrate that, for administrative purposes, the Kingdom of Pylos was divided into two "provinces," identified in the texts as $de-we-ro-a_3-ko-ra-i-ja$ and $pe-ra_3-ko-ra-i-ja$. This is seen most clearly in two Ng tablets, Ng 319 and Ng 332, which are attached to the Na series ($Docs^2$, 295–301, 468–473; Chadwick 1972, 104) and give the totals, for each province, of flax contributed by a number of places or districts ($Docs^2$, 141–145, 415–417; Bennet 1998a, 113–114). For the names of the two provinces it is clear that the element

 a_3 -ko-ra-i-ja has been combined with the prefixes deuro- ("on this side of") and pera- ("beyond"), respectively. "Hence we can deduce that the Kingdom is divided into two provinces separated by some conspicuous feature" (Chadwick 1976, 43). For identifying this presumed landmark, the historic names Akritas, for modern Cape Akritas, and Aigaleon, for modern Mt. Hagia (1,218 m asl; Map 6), are naturally suggestive, since (allowing for the flexibility of the Linear B "spelling rules") they resemble the Linear B element a_3 -ko-ra-i-ja. Of these

two alternatives, Chadwick (1963) rightly preferred Aigaleon since this mountain completely dominates the modern Pylos district, towering above Chora and the Palace at Ano Englianos. Also, the chain of mountains, Mt. Hagia from Kyparissia to Chora and the southward continuation comprising Mts. Maglavas and Lykodimos (959 m asl; Map 6; cf. Bennet 1998a, 114 [with map], fig. 61), constitutes the natural division between western and eastern Messenia. For these reasons, most scholars have followed Chadwick's identification of a_3 -ko-ra-i-ja as Aigaleon, and the hypotheses presented below depend upon this assumption.

For convenience the two "provinces" of the "Kingdom" are normally referred to as the Hither (de-we-ro) and Further (pe-ra) Provinces, usually abbreviated as HP and FP, respectively. A number of texts (Jn 829, On 300, Cn 608, and the Ma series) list prominent names within each province, nine in the HP and seven (or eight) in the FP. It is shown, both by their small number and by the assessments listed in the Ma tablets under them, that these names were those of the principal districts into which the Kingdom was divided for taxation purposes (Chadwick refers to them as the "principal towns"). In the HP the names occur in the same order in Jn 829 (contributions of bronze), Cn 608 (contributions of fattened pigs), and Vn 20 (distributions of wine from the Palace to these districts; see *Docs*², 205–206, 348–349, 357, 511–514; cf. Bennet 1998a, 114, 116-118). "The chief evidence for the location of the principal towns comes from a mutilated document (On 300). It is divided into two paragraphs, the heading to the first of which is lost; the second states that it relates to pera-a,-ko-ra-i-ja, the Further Province" (Chadwick 1972, 105; cf. *Docs*², 466–468).

Each principal district was under the control of a *ko-re-te* (governor or overseer) and a *po-ro-ko-re-te* (deputy governor), officials apparently appointed by the Palace (Palaima 2006). We cannot tell whether these officials were sent out from the center or recruited from among the inhabitants of the districts. Their function is most clearly shown in Jn 829, where these officials are held responsible for contributions of specified amounts of "temple" bronze for making points for arrows and spears (*Docs*², 352–358, 508–514; Chadwick 1972, 105; 1976, 72, 141–142; Bennet 1998a, 114–115, 118, fig. 59). It has been demonstrated that

for fiscal purposes the districts were divided into eight groups (Wyatt 1962; Shelmerdine 1973; cf. Bennet 1998a, 120, table I), four in each province. Most groups consisted of two or three districts, but one group in each province consisted of only a single district, pe-to-no in the HP and ra-u-ra-ti-ja in the FP. In the HP the districts forming each fiscal group are listed together in the same fixed order on several lists (e.g., as in Cn 608 and Vn 20; Table 3), and (apart from pe-to-no) each district within a group is assessed more or less equally in the Ma series for commodities deduced from their ideograms by Ventris and Chadwick as A and B (Docs², 289–295, 464–466; Shelmerdine 1973, table I). It is therefore assumed that the same principle of "fair taxation" (in relatively small quantities) would have been applied also for the fiscal groups of the FP; but there are apparently some differences between the administration of the FP and that of the HP. The districts which comprise the fiscal groups in the FP are not listed together or in the same fixed order, as is shown by the differences between their orders in Jn 829 and On 300 (Table 3; cf. Bennet 1999, 143).

There are also some differences between the two provinces in the Ma assessments themselves. The 17 Ma tablets list (in a fixed order) six commodities, which include oxhides (classified by Ventris and Chadwick as D) and a kind of cloth garment (classified by Ventris and Chadwick as A) that may have been locally produced (Docs², 289-295; Killen 1984b, 61-62; cf. Killen 2008). The commodities required by the Palace are to be supplied by the districts in the amounts specified, and it may be significant that the overall assessments for the FP are greater than those for the HP (cf. Shelmerdine 1973, 271–274). The districts listed in the Ma series are the same as those in Jn 829 for the HP, but two of the names in the FP, e-sa-re-wi-ja and a-te-rewi-ja, do not occur in Jn 829, where the last name (after za-ma-e-wi-ja) is e-re-i (the possible explanations for this difference are discussed below).

The name *pu-ro* (Pylos) occurs fairly frequently in the tablets, especially in lists of personnel located there (*Docs*², 155–194, 418–432; cf. Sainer 1976, 51–52). It is of course obvious that *pu-ro* itself, as the recipient of taxes or "contributions," would be exempt from taxation. In the FP *re-u-ko-to-ro* may in some manner have held "a parallel position" (Bennet 1998a, 122), since it appears to

have been the administrative center for the province, although naturally itself subordinate to *pu-ro* (*Docs*², 418, 466; cf. Chadwick 1972, 107; Bennet

1995, 592 nn. 14, 15, 601; see also "The Further Province," below).

The Districts of the Kingdom of Pylos and the Economy

In the discussion that follows, I have not made use of any computer-generated simulations (e.g., Cherry 1977) of "linkages between towns and villages" (cf. Cosmopoulos 2006b, 208–213). Carothers (1992, 239–244) lists the correlations between "major towns and the villages with which they are most highly correlated" (cf. Sainer 1976), but the evidence is too diverse and complex to permit any reliable statistical analyses. The factors involved, especially the geography and topography, cannot be organized into sufficiently objective categories. The weight to be given to the various components of the evidence is a matter for human judgment, which must here inevitably be in part subjective.

I have not attempted to identify the locations of any of the named "villages" within the districts, such as the 12 "of special importance to the palace for their economic activities," especially flax production and textile manufacture (Chadwick 1976, 150-156; cf. Carothers 1992, 276-277; Cosmopoulos 2006b, 211-213, table 4). The commodity sa on the Na, Ng, and Nn tablets must refer to flax or linen, since it is identified as ri-no on Nn 228.1 $(Docs^2, 298, 468, 470-471)$. The growing of flax in general, and the linen industry of Mycenaean Pylos in particular, are discussed by A.L. Robkin in a long note in AJA (1979). The more centralized perfumed oil industry at Pylos has been fully examined by Shelmerdine (1984, 1985, 1998b). For the Pylos industries in general, see Shelmerdine 2007, where the varying degrees of official control over them are illustrated. The extent and nature of Mycenaean state centralization and palatial control over the economy have been the subject of much recent discussion, particularly by Galaty and Parkinson (2007b, 3–9), and in several papers by Halstead (e.g., 1998–1999, 2001, 2003, 2007). Some centralized "direct production" of grain, olives, figs, and grapes is indicated, as is the breeding of sheep (for wool). Some commodities were gathered by means of taxation, while land tenure also entailed reciprocal obligations to provide

specific services and/or goods for the center (Killen 1985). Other services were performed by dependent workers (including slaves) in return for subsistence in the form of rations. Halstead infers that taxation may have played a relatively minor role in the economy, whereas "[u]nrecorded flows of goods, both into and out of the palace on both an intra- and interregional scale, are attested archaeologically or can be inferred by analogy" (Halstead 2007, 68). Nevertheless, as he observes, "The mobilization through taxation, however, of non-staple raw materials and of skilled master craftsmen was of vital indirect importance to the palatial economy, if palatial craft goods played a major role in unrecorded exchange transactions" (Halstead 2007, 70).

It is apparent that the Pylos rulers generally followed the principle of fairness in taxation, i.e., with "contributions" assessed in proportion to the differing sizes and/or populations of the districts. A rudimentary equity is shown in the actual figures for the amounts of each commodity to be paid, although there are minor mathematical irregularities, apparently due to some crude methods of calculation (Shelmerdine 1973). The same fairness and practical simplicity may be observed in their divisions of the districts into fiscal units (groups composed variously of one, two, or three districts). These divisions seem to be based mainly on geographical contiguity, while at the same time taking into account variations in the sizes of the districts. Whether or not the "contributions" demanded from the districts were regarded as burdensome, it would have been essential for the rulers to obviate any accusations of inequity or favoritism regarding the amounts assessed, even if the "exactions" of the Palace were "hardly oppressive" (Palaima 2007, 139).

Bureaucratic control by the Palace, although pervasive (about 1,000 individuals are named in the Pylos tablets), was clearly far from total. The officials appointed by the Palace, the *ko-re-te-re*

Tablet Jn 829	Tablet Cn 608	Tablet On 300	Tablet Vn 20
pi-*82†	pi-*82†		pi-*82-de†
me-ta-pa	me-ta-pa		me-ta-pa-de
pe-to-no	pe-to-no		pe-to-no-de
pa-ki-ja-pi	pa-kija-si	pa-ki-ja-nijạ	pa-ki-ja-na-de
a-pu ₂ -we†	a-pu ₂ -we†		a-pu ₂ -de†
a-ke-re-wa	a-ke-re-wa		a-ke-re-wa-de
rọ-ụ-so	e-ra-te-i	e-ra-te-i-jo	e-ra-to-de
ka-ra-do-ro	ka-ra-do-ro		ka-ra-do-ro-de
ri]-jo	ri-jo		ri-jo-de
		pe-ra-a-ko-ra-i-jo	
ti-mi-to-a-ke-e		ra-u-ra-ti-ja	
ra]-wa-ra-ta₂†		e-sa-re-wi-ja	
sa]-ma-ra		e-[ra-te]-re-wa-o	
a-si-ja-ti-ja		te-mi-ti-ja	
e-ra-te-re-wa-pi		sa-ma-[ra]	
za-ma-e-wi-ja		a-si-ja-ti-ja	
e-re-i			

Table 3. The districts of the Kingdom of Pylos in the order listed on four tablets (after Chadwick 1972, Bennett 1985, and Bennet 1998a). †Some syllables whose values have not yet been securely determined are given provisional designations (according to $Docs^2$, 21–23, fig. 4). The values later proposed ($Docs^2$, 385–387, fig. 27) include: *82 = swa?, $pu_2 = phu$, and $ta_2 = tya$. According to this revision, pi-*82 would become pi-swa, a- pu_2 -we would become a-phu-we, and ra-wa-ra- ta_2 would become ra-wa-ra-tya. A full list of the Ma assessments and a revised numbering of the tablets is given by Shelmerdine (1973, 262, table I), in which are incorporated the figures given by Bennett and Olivier (1973).

and *po-ro-ko-re-te-re*, interacted with local leaders, the *qa-si-re-we* (chiefs?) and their *ko-ro-si-ja* (council of elders?). Land tenure was mainly under the jurisdiction of the *da-mo*, a body (or bodies) whose exact composition is not known, but which was clearly separate from the Palace bureaucracy.

In general, there is no doubt that the Mycenaean political systems conferred great benefits on their societies, by providing an environment which allowed them to enjoy many of the material advantages of civilization. These are demonstrated by the great economic improvements, new skills in craftsmanship, impressive public works (highways, dams, and canals; cf. Hope Simpson and Hagel 2006), and overall security provided by the Palace, in exchange for which some degree of local autonomy had to be ceded by the citizens. Much of the central control appears to have been exercised by means of "religious" rituals, involving

regular sacrifices and other offerings to the deities and often accompanied by feasting (cf., e.g., Palaima 2008, 385).

In Table 3 the district names are listed in the same order as on each tablet named, and in Table 4 they are listed in the fiscal groups in which they have been assigned. The names are listed here in the forms in which they appear on the documents themselves, as is customary. The names a-pu,we and ti-mi-to-a-ke-e occur only in oblique cases, such as the dative-locative in Jn 829, or (for ti-mi-to) in adjectival form, as ti-mi-ti-ja (in Jn 439) and te-mi-ti-ja (in On 300). It is assumed that their nominatives would have been a-pu, and timi-to-a-ko, respectively. Jn 829 shows the quantities of bronze to be collected at each "town" by the officials, the ko-re-te and po-ro-ko-re-te. In Cn 608, the inhabitants of each locality have to fatten a small number of pigs (presumably for a ritual feast; cf. Bennet 1998a, 112-114). This tablet is

Group	District Name	Tablet CN 608 (pigs)	Tablet Vn 20 (wine)	Ma Series (commodity A)	Location (?)
Hither Province					
la1	pi-*82† me-ta-pa	$\binom{3}{3} = 6$	$\frac{50}{50}$ } = 100	$\binom{28}{28}$ } = 56	[North]
la2	pe-to-no	6 = 6	100 = 100	63 = 63	[West]
lb1	pa-ki-ja-ne a-pu ₂ -we† a-ke-re-wa	$\left\{\begin{array}{c}2\\2\\2\end{array}\right\} = 6$	35 35 } = 100 30	23 23 23 } = 68	[Central]
lb2	ro-u-sole-ra-to ka-ra-do-ro ri-jo	$\left\{\begin{array}{c}3\\2\\2\end{array}\right\} = 7$	50 40 } = 110 20	17 18 } = 52 17	[South]
				Total = 239	
Further Province					
lla1	ra-u-ra-ti-ja	_	_	70 = 70	[SE]
lla2	za-ma-e-wi-ja e-sa-re-wi-ja	_	_	$\binom{28}{42}$ } = 70	[NE]
llb1	ti-mi-to-a-ke-e sa-ma-ra a-si-ja-ti-ja	_		24 24 } = 72 24	[SW]
IIb2	e-ra-te-re-we a-te-re-wi-ja	_	_	46 23 } = 69	[NW]
				Total = 281	

Table 4. Fiscal groups of the Kingdom of Pylos (after Shelmerdine 1973 and Bennet 1998a). †Some syllables whose values have not yet been securely determined are given provisional designations (according to $Docs^2$, 21–23, fig. 4). The values later proposed ($Docs^2$, 385–387, fig. 27) include: *82 = swa?, $pu_2 = phu$, and $ta_2 = tya$. According to this revision, pi-*82 would become pi-swa, a- pu_2 -we would become a-phu-we, and ra-wa-ra- ta_2 would become ra-wa-ra-tya. A full list of the Ma assessments and a revised numbering of the tablets is given by Shelmerdine (1973, 262, table I), in which are incorporated the figures given by Bennett and Olivier (1973).

one of a number that list the nine districts of the HP alone, in the same fixed order, as in Vn 20, which lists quantities of wine for distribution from the Palace to these districts. The ideogram 154, the subject of On 300, is a commodity (which cannot be identified), for various quantities of which the *ko-re-te* are responsible. The second paragraph of the tablet is headed *pe-ra-a-ko-ra-i-ja*, "plainly an adjectival form from *pe-ra-ko-ra-i-ja* of Ae 398 and *pe-ra₃-ko-ra-i-ja* of Ng 332" (*Docs*²,

466–468). In another fragmentary text, Vn 493, there appears to have been the same distinction between the two provinces. But in this text the FP names listed come first, and there is no explicit mention of the terms *pe-ra-a-ko-ra-i-jo* or *de-we-ro-a-ko-ra-i-jo*, although there is a blank line (line 7) between the listed FP names listed and the listed HP names (*Docs*², 467; Bennet 1995, 588–591). The recognizable district names listed are (in this order): in the FP *ti-mi-ti-ja* (line 2), *e-sa-re-wi-ja*,

za-ma-e-wi-ja-qe (line 3), and e-ra-te-re-wa-pi (line 4), and in the HP me-ta-pa-qe (line 9), pe-to-no (line 10), and a-ke-re-wa-qe (line 11). The sub-ject of this tablet is unknown; but several of the names (including those missing) were here clearly linked together, as is shown by the occurrences

of the enclitic particle -qe ("and"; Docs², 576), and especially by the juxtaposition in line 3 of e-sa-re-wi-ja with za-ma-e-wi-ja-qe (Chadwick 1972, 105). In line 6 a-te-re-wi-ja "is plausibly restored" (Shelmerdine 1973, 263) as a-te]re-wi-ja-qe.

The Origins of the Kingdom

The LH IIIB palace complex at Ano Englianos and the contents of its Linear B tablets show that Pylos on the eve of its destruction was still in full control of its territory, although evidently facing an external threat to its power (Chadwick 1976, 173–179). The texts reveal that in its last year the Kingdom still maintained a flourishing perfumed oil industry, centered on the Palace (Shelmerdine 1984, 1985), and textile production, both there and in other parts of the Kingdom (Killen 1984b), also organized by the palace, which also exercised a general bureaucratic control over several other industries (especially the working of bronze).

Although we have no direct evidence as to how and when this Kingdom was acquired, we may infer, from the texts and the archaeological data, that the expansion of Pylos began in the west with the acquisition of most of the HP, and that the FP was incorporated at a later stage (Bennet 1995, 596-599). At the Palace itself, significant growth is first shown by early tholos tombs and the LH I-IIA circuit wall, and later by the remains of a large LH IIIA building underneath the LH IIIB palace (Blegen et al. 1973, 32-40; cf. Bennet 2007, 32-35). Few Mycenaean settlements in Messenia have been excavated, and most of these only partially, but the tombs examined include many early Mycenaean tholoi (see, above, Ch. 2, "The Development of Mycenaean Civilization in Messenia"). In some cases these may indicate the presence of small "chiefdoms" (Wright 1995) in the early Mycenaean periods, LH I to LH IIIA1, prior to the major expansion in LH IIIA2-IIIB (cf. Shelmerdine 1999a, 2001).

In LH I, Pylos may have already become *primus inter pares* in the Pylos district. By LH IIIB, both in western and eastern Messenia, several other formerly prominent settlements, including Myrou: Peristeria (22B) and Vasiliko: "Malthi-Dorion" (27), had

already declined (Bennet 2002, 23-24). The evidence strongly suggests that this decline was due in large part to the expansion of Pylos (Bennet 1999, 145-146). Many other settlements, however, may have reached their greatest size in LH IIIA2-IIIB. The remaining contents of the excavated tombs at Aithaia: Ellinika (78) are mainly of these periods. Although up to 80% of the Mycenaean site at Rizomylo: Nichoria (76) was already occupied in LH II (Dickinson 1977, 92), it only reached its maximum size (ca. 5.0 ha) in LH IIIA2-IIIB. The megaron (Unit IV-4A) constructed here in LH IIIA1 went out of use by LH IIIA2 (Aschenbrenner et al. 1992, 433–439), and the Veves tholos tomb, in use from LH I to LH IIIA2, was replaced by the tholos tomb at the western end of the site, in use from LH IIIA2 to LH IIIB2 (Wilkie 1992). It is accordingly surmised in Nichoria II that "at some time during LH IIIA2-IIIB Nichoria was drawn into the Pylian state" (McDonald, Dickinson, and Howell 1992, 766–767, citing Shelmerdine 1981; cf. Shelmerdine 1981 for the identification of Nichoria as ti-mi-to-ake-e, discussed below).

The first phase of the expansion of Pylos would have been the incorporation of the Pylos district, extending roughly from modern Pylos in the south to Gargaliani in the north (cf. Bennet 1999, 142-144). There appear to have been no serious impediments to the further expansion of Pylos either to the north (at least up to the Neda River) or to the south; and, as in the case of the expansion of Mycenae (cf. Wright 1995; Hope Simpson and Hagel 2006, 154–155), the growth of the Kingdom of Pylos was accompanied by a large increase in population in western Messenia in LH IIIA2 and LH IIIB. Expansion to the east, into eastern Messenia, may not have been as easy. Peristeria and Nichoria were already substantial centers in LH I–IIIA1. Control of Nichoria, at the eastern end of the major road from western to eastern Messenia, would have been an essential first step. For expansion eastward from Kyparissia, it would have been necessary to absorb or neutralize Peristeria. By LH IIIA, "Malthi-Dorion" was already in decline. It has been suggested that internal warfare was "probably responsible for the rise of Pylos" (Dickinson 1977, 109-110), and that the iconography of the frescoes in Hall 65 at the Palace may portray expansion of the Kingdom by use of force (Davis and Bennet 1999). But there are no signs of any destruction in LH IIIA at either Peristeria (22B) or Nichoria (76). It is, however, likely that the discontinuation of the use of the LH IIIA1 megaron at Nichoria, and the construction there of a new tholos tomb at the beginning of LH IIIA2, may indicate a change of authority at this time, i.e., that Nichoria had now come under the control of Pylos (Bennet 1999, 142-144). It has been supposed that Nichoria may now have been linked to the Palace by a built road; but the existence of such a road is not proven (see, above, Ch. 2, "12. Petalidhi, Rizomylo and the Five Rivers District"). Bennet (1999,

142–144) suggests that the construction of the final palace at Pylos in LH IIIB "would probably represent the final stage in the expansion of the Pylos polity, presumably reflecting the incorporation of pe-ra,-ko-ra-i-ja," the FP. Another kind of indication that this incorporation was probably the last stage in the growth of the Kingdom seems to be the use of "adjectival" forms (ending with -i-ja, like the names of the two provinces themselves) of five out of the eight district names of the FP, in marked contrast to all those in the HP. This suggests an artificial "coining" of these five "adjectival" FP names (first noted by Ruipérez and Melena 1990, 115). The names may have been formed from personal names, e.g., a-te-re-wi-ja for "the land of Atreus." The Pylos bureaucracy may not have been familiar with all the names of the centers in the newly incorporated districts. "And is the fourfold division into taxation groups perhaps imposed on the basis of the long-established—essentially geographical—division of HP?" (Bennet 1999, 143; cf. Bennet 1998a, 128; Davis, Bennet, and Shelmerdine 1999, 180-181).

The Extent of the Kingdom

In addition to the documents relating to the taxation of the districts, we have also the evidence of the o-ka ("coastguard") tablets. This set of five tablets (An 657, 654, 519, 656, and 661) details 10 detachments sent to watch specific sections of the coast. Their "lookouts" would presumably have been on suitable heights, to give the maximum potential for observation of approaching vessels and provide sufficient time for reaction. The heading of An 657, which introduces the set, is translated by Chadwick as "[t]hus the watchers are guarding the coastal regions" (Docs2, 183-194, 427-431). Each contingent or o-ka ("command") is preceded by a man's name in the genitive, and is followed by a place name (although this is sometimes omitted) and a group of men's names in the nominative (presumed to be the subordinate officers). After this comes the description of the troops themselves (e.g., their types and ethnicity), their number (multiples of 10, ranging from 10 to 110), and their station (or destination). The contingents were accompanied by one or more *e-qe-ta* or "Follower."

These were elite officials who possessed chariots whose drivers could have acted as dispatch-riders. The relatively small number of the troops listed (780 or slightly more), dispersed to several points along the coast, shows that they were not intended to confront an invading army or raiding party, but to provide an early warning system (*Docs*², 427; cf. Chadwick 1976, 173–179), whether or not imminent danger was perceived (Shelmerdine 1999b).

As Chadwick has demonstrated, the order of the *o-ka* tablets most probably conforms with that of the "fixed lists" of the HP districts (in Jn 829, Cn 608, and Vn 20; cf. Table 3). Naturally, not all of the district names appear on the *o-ka* tablets, and many of the names that appear do not occur in any other of the Pylos documents. As Chadwick says, this is understandable, since the detachments would be at look-outs "on uninhabited cliffs and promontories" rather than at settlements, although they would have been based on the nearest "town" (*Docs*², 428–429). As arranged by Chadwick, the

order (An 657, An 654, An 519, An 656, An 661; cf. Docs², 429) follows the coastline of Messenia from its northernmost point, the mouth of the Neda River, southward to Cape Akritas, and then along the coast of the Messenian Gulf to the mouth of the Nedon River. The names that appear both in the o-ka tablets and in the HP "fixed lists" are ake-re-wa and ka-ra-do-ro, and the ethnic adjective me-ta-pi-jo (in An 654) corresponds with me-tapa of the HP. In An 661, 30 men from ti-mi-to-ake-e (the only FP district named in the o-ka series) are to be sent ne-do-wo-ta-de ("towards the Nedon"). In An 657 the o-ka of Nedwatas is manned by men of Kyparissos (Palmer 1956, 143; Chadwick 1963, 136; 1972, 109, cf. 105-106). Chadwick notes that the names pi-*82, me-ta-pa, and pe-tono are absent from the o-ka lists, except that men of me-ta-pa are deployed, presumably in this northern region. From this, Chadwick deduces that the major centers for these districts were not on the coast, but inland (1972, 108; cf. Bennet 1999, 141–142, although not all of his conclusions there can be accepted). The proposal (Lang 1990) that An 519 should be placed immediately before An 661 is likewise inacceptable, as is argued below (see, below, "The Hither Province").

From a combination of the evidence of the tablets with the geographical facts, we may deduce the overall extent of the Kingdom. Mount Taygetos obviously formed its eastern boundary. The Neda on the north and the Nedon on the south were natural frontier regions (Chadwick 1972, 109; 1976, 45; $Docs^2$, 427; Bennet 1998a, 117), both rivers within or adjoining mountainous terrain. It may also be deduced, from An 661, that the southern part of the border between the HP and FP lay between ka-ra-do-ro of the HP and ti-mi-to-a-ke-e of the FP.

The Locations of the Districts of the Hither and Further Provinces

The attempt to identify on the ground the districts into which the provinces were divided for purposes of taxation is subject to the obvious limitations of the data available. Any proposed solutions must be compatible both with the evidence from the documents and the results of archaeological exploration. For the locations of the districts and their components (groups of sites), the main factors involved are the order(s) of the place names and their economic capacities, as indicated in the tablets, the distribution and sizes of the known Mycenaean sites, the topography, and the communications. For identifying the main "towns," the centers of the districts, size is obviously a major criterion. And the presence (or absence) of large buildings, important tombs or tomb groups, and fortifications are also important considerations. Most of the sites have been discovered by surface exploration only, and estimates of their sizes have usually been deduced only from the "spread" of surface artifacts. (Bennet [1995, 593] criticizes Carothers for omitting from her list of the large sites in Messenia some that are only, or mainly, known from tomb evidence.) In general, the approach should be holistic, not piecemeal. When assessing the evidence from the documents, we should give the most attention to the more reliable and consistent data and not be led astray by minor and controversial arguments over anomalies such as a few marginal or inter-linear additions by scribes. As regards the data from excavation and survey, we should take into account the evidence concerning all of the Mycenaean sites discovered in Messenia, not just of a select few.

The locations suggested here for the districts of the Kingdom are listed in Table 5. The main sites discussed are shown on Map 6, and those suggested as district centers are indicated on its key. The particular suggestions are mainly based on the presently known pattern of Mycenaean settlement in Messenia. In several cases there are no obviously outstanding candidates for particular district centers. The caveat expressed in my previous discussion of the Kingdom of Pylos (in *MG*, 144–150) still applies:

since most of the evidence comes from surface exploration alone, we can seldom be absolutely certain that all the sites in question were in use at the precise time referred to in the tablets. But it is reasonable to assume that most of them were; and by concentrating on districts rather than on individual sites, the possibilities of error in this respect may be reduced. The survey and excavation work carried out in Messenia and Triphylia, although considerable and prolonged, has not provided complete or even uniform coverage; and the most that can now be presented is a working hypothesis. (MG, 146)

The Hither Province

As Chadwick has shown, the nine district names of the "fixed list" of the HP (Table 4) are listed roughly from north to south (Table 3; Map 6). This order was probably that of the itinerary followed in an annual inspection by the designated official(s). The record of the decisions made on the basis of this inspection would be dictated to the scribe (Chadwick 1976, 20, ill. 9). The appropriate instructions would then be issued (if they had not already been given at the time of the inspection) to the overseers of the districts, the ko-re-te and po-ro-ko-re-te. (Any notion of "scribal routes" [cf. Bennet, 1999, 138-139] would not be a sufficient explanation of the fact that the order of the HP district names is the same in Jn 829, Cn 608, and Vn 20.) An appropriate time for this (assumed) tour of inspection would be in the spring, the most favorable time for travel, especially if by sea. From the three Pylos tablets (An 12, An 610, and An 724; cf. $Docs^2$, 183–188, 430–432) that list specific groups of rowers, it may be deduced that, for official purposes, the Pylos rulers would not have trusted in sail alone. The most sensible plan for an inspection of western Messenia would be for the official to be rowed from the port of Pylos (see below) to Kyparissia, the only safe harbor on the coast to the north up to the Neda River. He would then inspect the territory of the HP from north to south, by land as far as Pylos, and the remainder, to the south and southeast of Pylos, by a combination of land and sea travel. Chadwick places the destruction of Pylos also "in early spring" (1976, 89-91, 191-192) on the basis of Tn 316, a tablet recording ritual offerings at Pylos to Poseidon and other gods, headed as in (the month of) po-ro-wi-to-jo (plowistoio = "time for sailing"(?), as conjectured by Palmer 1963, 447; cf. Docs2, 284-289, 462-464). The period when the calmest seas can be expected here is roughly from late April to mid-June (Loy 1970,

35, 38, fig. 14; Loy and Wright 1972, 37–38). But the winds are seldom strong in the southwest Peloponnese except at times in the winter. Palaima suggests that the best "time for sailing would have been from late June to the end of August" (Palaima 1995, 629–632).

Since *pu-ro* is definitely marked as the name of the Palace and its "Lower Town," this is obviously the starting point for attempting to establish the locations of the HP district names. Several tablets show a definite connection between pu-ro and paki-ja-ne, the fourth name in the HP "fixed list." In Tn 316 pu-ro is associated with pa-ki-ja-si (locative of pa-ki-ja-ne; cf. Chadwick 1976, 43). The initiation of the "wanax" (or, king) took place at pa-ki-ja-ne, which had "a large religious establishment" (Sainer 1976, 48-49; cf. Chadwick 1976, 45), most notably for the worship of Potnia (Chadwick 1976, 89-94). It also appears to be the location of various "royal" craftsmen and servants of the gods (Docs², 240–264; Chadwick 1976, 43). The center of pa-ki-ja-ne was probably at Chora: Volimidhia (41), at the northern end of Chora village, where there was a large cemetery of chamber tombs and a settlement, beginning in LH I. Although pu-ro and the Palace dependencies would have been within the district of pa-ki*ja-ne*, they were presumably exempt from taxation (Chadwick 1972, 107; 1976, 43). The Ma assessment for pa-ki-ja-ne (Ma 221) is no greater than those for a-pu₂-we (Ma 124) and a-ke-re-wa (Ma 222), the other districts in this fiscal group (Table 3, Ib1 [Central]).

Also closely connected with *pu-ro* is the important coastal "town" of *ro-o-wa* (Sainer 1976, 55), the base for the most important coastal command, the *o-ka* with 110 men, the largest of all the contingents (An 519, lines 1–4). In An 1 *ro-o-wa* is listed first (rowers to go to Pleuron; *Docs*², 185–186), as

in An 724 (absent rowers; *Docs*², 187–188). Chadwick comments (on An 724), "[a]s the Lawagetas and other important people such as Ekhelawon are associated with it here, it may well be the port of Pylos itself" (*Docs*², 187–188; cf. Chadwick 1972, 109–110). He concludes that "there is thus some reason to place *ro-o-wa* in the district of *pa-ki-ja-ne*, fourth on the standard list, in which the Palace is situated."

Next in Group Ib1 [Central], and marked by its order in the lists as "south" of pa-ki-ja-ne, is apu,-we. This, as first suggested in MG (147; cited by Cosmopoulos 2006b, 215), is now generally agreed (cf. Bennet 1999, 147) to have been centered at Iklaina: Traganes (52; IKAP T), ca. 12 ha in size (as noted above), first explored by Marinatos and currently being excavated by Cosmopoulos. He and his team have already uncovered remains of impressive buildings at the site (see above), and they have found several other Mycenaean sites in this vicinity in their intensive survey (including sites I and K near Iklaina and site M near Myrsinochori). The district surveyed by IKAP forms a natural unit to the southeast of, and adjoining, the environs of the Palace, but it is separated from them by ravines and steep terrain (Cosmopoulos 2006b, fig. 6). The case for the identification of this Iklaina-Myrsinochori district as a-pu,-we also depends on the arguments (below) concerning the identification of a-ke-re-wa, since a-pu,-we was listed between pa-ki-ja-ne and a-ke-re-wa. In MME, Chadwick (1972, 109) suggests that a-pu₂-we was not on the coast. Certainly none of the evidence concerning this district suggests any maritime connection (cf. Sainer 1976, 33; Cosmopoulos 2006b, 217, with nn. 72-76). In addition to its appearance in Cn 608 and Vn 20, apu,-we is listed with smiths (Jn 693) and with an exemption for smiths (Ma 124).

To the "south" of *a-pu₂-we* was *a-ke-re-wa*, the last name in the fiscal Group Ib1, described by Chadwick as "a port of some consequence" but "apparently not the port for the palace" (Chadwick 1976, 46; cf. *Docs*², 186–188, 431–432, for rowers in An 610 and An 724, and *Docs*², 192–193, 428, for the *o-ka* of Dwoios at *a-ke-re-wa*, Sector VIII, An 656). By 1975, Chadwick had already realized that *ro-o-wa*, to the "north" of *a-ke-re-wa*, was marked as the port for the Palace. His conclusion was, of course, made long before the brilliant

discovery, by the scientists of the PRAP team, of evidence for an artificial cothon harbor at Romanou (Zangger et al. 1997, 613-623). Accordingly, he had assumed that the principal harbor of puro would have been the northern shore of the Bay of Navarino. But he also observed, "[a]lternatively, if a-ke-re-wa is Palaiokastro, ro-o-wa would lie further north, probably at a site not yet found" (Chadwick 1972, 109-110). Chadwick's observation demonstrates a remarkable prescience. The evidence for a harbor at Romanou, only ca. 4.5 km from the Palace, together with the adjacent PRAP site I4 at Romanou itself (at least 2.5 ha in LH III; cf. Bennet 2007, 37–38), clearly indicates that Romanou is almost certainly the site of ro-o-wa. It follows that the port of a-ke-re-wa, to the south of ro-o-wa, must have been on the Bay of Navarino, the only natural harbor in the district. The bay, sheltered by the islands of Sphaktiria and Palaiokastro (the latter before the formation of the Voidhokoilia sandbar; Pl. 1A), would have been the original Pylos harbor, before the creation of the Romanou port. For the center of a-ke-re-wa there are no good candidates on the northern shore of the bay (although this would have been the main harbor area, along the northern shore of the present Osmanaga lagoon), and Palaiokastro itself would have been too exposed (to the weather) for the location of a major settlement. But several Mycenaean settlements were found around the Pylokambos plain on the eastern side of the bay. The largest of these, Yialova: Palaiochori (58) (ca. 5.4 ha [max.?]; Pl. 1B), above the northeastern corner of the bay, was well situated to control the northern and eastern shores, and to serve as a suitable headquarter for the o-ka of Dwoios, the contingent stationed at a-ke-re-wa (An 656), numbering 80 men and various named officials, including three e-qe-ta ("Followers"). Ten ke-ki-de men, specified as young (ne-wo), and a Follower are at u-wasi (Docs², 192–193, 428; Chadwick 1976, 176–177, Sector VIII). This specification suggests that their youthful agility and eyesight would have been employed at the higher lookouts on the heights of Palaiokastro and Sphaktiria (in the background of Pl. 1B), commanding the three channels entering into the bay. The spectacular configuration of these heights and channels is surely the explanation of the name Pylos, "gate" (to and from the sea), given to the district. The area of the Bay of Navarino and the coast immediately north of it would have been "the point of maximum danger" (Chadwick 1976, 176–177), and it is here that the most Followers (5 in An 656) and the most troops (including the 110 at *ro-o-wa* listed in An 519) would be needed (cf. *Docs*², 430).

Although a-ke-re-wa was on or near the coast, over 250 sheep are recorded here (Cn 202), implying a considerable amount of pasture land (suggesting the vicinity of the Osmanaga lagoon). At least 28 bronzesmiths are mentioned (Jn 310, Jn 693, and Jn 725; cf. Sainer 1976, 31), but the assessment for a-ke-re-wa on Jn 829 is the same as for all the districts of the HP. The Ma assessment for a-ke-re-wa is the same as that for the other two districts in Group Ib1, pa-ki-ja-ne and a-pu₂we, implying roughly the same agricultural capacity. For estimating the extent of a-ke-re-wa, some definite indications are provided by the geography of the region. Yialova: Palaiochori (58) is at the northern end of the Dapia-Pyla range of low hills, between Yialova and Pyla, running northwest to southeast above the small Pylokambos coastal plain, which ends a little to the north of modern Pylos. Besides site 58, UMME recorded two smaller Mycenaean sites, 58A and 58C, on two other low hills in the range. In MME, Lukermann (1972, 157-158) comments, "[t]he subarea of the river valleys entering on the Dapia-Pyla sites is separated from the central area [i.e., e.g., Iklaina, Koukounara] by an environmental barrier of a high infertile ridge and deep ravines between Iklaina and Yialova, which tends to curve routes from the central plateau both north and south of a direct line to the [Osmanaga] lagoon area." In other words, there is a natural division between the Iklaina and Yialova areas. To the north of Yialova we have no clear indications as to where the border between the territories of pa-ki-ja-ne and a-ke-rewa might lie. But Koryfasion: Beylerbey (56) was not far from Romanou (I4) and the artificial port of Pylos, and therefore it was probably also within pa-ki-ja-ne (Galaty and Parkinson 2007b, 11-12; pace Bennet 1999, 145-147; see further discussion below).

If the locations for *pa-ki-ja-ne*, *a-pu₂-we*, and *a-ke-re-wa* proposed above are accepted, it would be possible to assign the known Mycenaean sites (as marked on Map 2) as follows:

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to pa-ki-ja-ne: 40, 41, 41A, 42A, 42B, 45, 46, 55, 56, 57, I4;
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to *a-pu*₂-we: 48, M, 49, 50A, 51A, 52, 53, 54, I, K;

to *a-ke-re-wa*: 58, 58A, 58B, 58C, 59A, 59D, 59E, 60, 61, 63, 64, 66A, 72E.

Some settlements in *pa-ki-ja-ne* may have been exempt from taxation if they were associated with the Palace.

It is natural to assume that the first fiscal group, Ia1 [North], in the HP "fixed list" would be the northernmost. The second fiscal group, Ia2 [West], presumably to the south of the first group, consisted of only one district, pe-to-no, which was obviously very productive, with a Ma assessment of 63 (Ma 120) more than those of the two districts of the first group, pi-*82 and me-ta-pa, combined (Table 4; cf. Docs², 289–295, 464–466; Sainer 1976, 50). Assuming a north to south order of the names, the only region south of the Neda (probably the northern boundary of the Kingdom) and north of the Pylos district sufficiently productive to qualify as pe-to-no, is that between Filiatra and Marathopolis (Map 3). Here the one site that stands out above all the others is Filiatra: Hagios Christophoros (22L) (Chadwick 1976, 45, "Haghios Khristophoros"). This site, where the Mycenaean sherd spread was recorded as ca. 4.5 ha (see, above, Ch. 2: 6. Gargaliani to Filiatra) overlooks the agriculturally rich Filiatra area (Pl. 2B), the most fertile part of the more productive southern half of the "Kyparissia-Filiatra Core Area" (as defined by Lukermann 1972, 161). Between the maritime site of Filiatra: Stomion (22F) (see, above, Ch. 2, "6. Gargaliani to Filiatra") and Kyparissia, the coastal plain in the northern half of this "Core Area" is much less fertile. Only a few Mycenaean sherds were found (at sites 22J and 22E) on the few small prehistoric sites discovered in this northern part. To account for its high Ma assessment, pe-to-no (if centered in the Filiatra area) would need to have included not only the sites around Filiatra, but also those to the south, at or near Valta and between Gargaliani and Marathopolis. Accordingly, it is suggested that the following known Mycenaean sites (Map 3) would have been included in pe-tono: 22F, 22J, 22K, 22L, 22M, 22N, 22P, 37 (PRAP K1), 37A, 37B, 37C (PRAP K2), M3 (PRAP), 38 (PRAP D1), and D2 (PRAP).

The hypotheses expressed above concerning the fiscal Groups Ib1 [Central] and Ia2 [West] differ in many respects from the suggestions in several of the PRAP publications, principally those made by Bennet. The following rejoinders to some of these suggestions are here respectfully presented.

Bennet (1999, 144-145) proposes Kyparissia as the northern boundary of the HP, on the grounds that this is "the point at which the northern extent of the Aigaleon range comes closest to the sea," so that the Kyparissia valley to the north might have been regarded as "beyond Aigaleon" (and therefore part of the FP). But, in addition to its assumption of a strictly literal interpretation of "beyond Aigaleon," this theory would allot to pi-*82 and me-ta-pa only the small amount of territory between Filiatra and Kyparissia, most of which would have been inferior land. Yet the sum of the Ma assessments for these two districts, which constitute the fiscal Group Ia1 [North], amounts to almost the same as that of Group Ia2 (pe-to-no) and as that of Group Ib1 (pa-ki-ja-ne, a-pu,-we, and ake-re-wa). In short, pi-*82 and me-ta-pa need far more territory than would be allotted to them according to Bennet's theory.

The territory covered by the PRAP intensive survey included only a few tracts to the north of Gargaliani, and only as far north as the Langouvardos River and Valta, ca. 6 km south of Filiatra (Davis et al. 1997, 393, fig. 2). They paid particular attention to two sites and the estimates of their sizes in LH III. For Koryfasion: Beylerbey (56; PRAP II) they give 3.52 ha; UMME gave ca. 3 ha. For Gargaliani: Ordines (37; PRAP K1) they give 2.1 ha; UMME gave ca. 2 ha (Davis et al. 1997, 423-427; Messenia I, 236, 242). On the basis of these estimates, Bennet and Shelmerdine have proposed Beylerbey as the center for a-kere-wa and Ordines as the center for pe-to-no. The sherd spread at Beylerbey was certainly large, but Marinatos, who made test excavations here, characterized it as a small and insignificant settlement. The pottery found was "all later LH" in date and almost entirely on the surface (cf. Messenia III, 149). Conversely, Bennet and Shelmerdine (2001, 136-138) noted a decrease in the amount of surface pottery here in LH III. Obviously the surface

conditions had changed between 1959 and 1992 (the date of the PRAP survey), when erosion had become even more severe. For the capital of a district, however, a marked increase in size in LH III would be expected (the slightly wider spread of LH III potsherds observed in 1992 may have been due to deeper plowing or other disturbance). The attempt (Davis et al. 1997, 426 n. 95) to dissociate Beylerbey from the territory of the Palace is specious. It is too close to the Palace (only ca. 5 km along an easy road) to have been the capital of a separate district (i.e., a-ke-re-wa) in LH IIIB. It is also too far inland (over 3 km) to have served as a "lookout" for the shores of the Navarino bay or even one for an artificial harbor at Romanou (proposed above as the site of ro-o-wa, the main port of pu-ro).

The suggestion (Bennet 1999, 145–146; cf. Bennet 2002, 27) that *pu-ro* itself lay within the district of *pe-to-no* has no support from the documents, in which, on the contrary, *pu-ro* is clearly associated with *pa-ki-ja-ne*, placed by most scholars, including Bennet, at the nearby site Chora: Volimidhia (41) (as discussed above). And *pu-ro* is too far distant (ca. 12 km "as the crow flies") from Ordines, suggested by PRAP as the center for *pe-to-no* (cf. Bennet 2007, 35–37). Furthermore, the Palace and its dependencies are naturally separated, by two ravines and the Gargaliani plateau, from the coastal plain between Marathopolis and Filiatra, which is clearly marked as probably the territory of *pe-to-no*.

Bennet and Shelmerdine (Davis et al. 1997, 426-427) claim that Ordines is "a logical candidate" for pe-to-no and that "[t]he prominence and strategic location of this site are unmatched in this vicinity" (Bennet and Shelmerdine 2001, 138). This could perhaps be said to be true for its immediate vicinity, but it was not well situated to command the whole plain. The unusually high Ma assessment for pe-to-no shows that it must have been both a large and fertile district. Ordines lies well to the south of the much better land of the Filiatra area, and, besides this, Ordines does not have the size that would be expected for the capital of a district. In order to believe that Ordines, at 2.1 ha, would be "roughly comparable in size to Beylerbey," at 3.52 ha (Bennet 2007, 37), we would have to abandon arithmetic. Ordines appears to have been only slightly more than "medium" in size in relation to other Mycenaean sites in Messenia. It does not possess any particularly outstanding features, such as signs of large buildings or tombs. Its only resemblance to Beylerbey is that it also is heavily eroded. Besides being less than half the size of Filiatra: Hagios Christophoros (22L), it is also smaller than another site nearby, Filiatra: Hagios Ioannis (22K), at ca. 2.7 ha. In the vicinity of Ordines, the twin settlements of Valta: Hagios Pandeleimon (37A) and Valta: Kastraki (37B), on the northern and southern banks of the Langouvardos, respectively, are of at least equal interest, since both were apparently accompanied by Mycenaean tombs (*Messenia* III, 145–146).

If it is accepted that the territory of pe-to-no included the Filiatra district (as is maintained above), it follows that we should place pi-*82 and me-tapa within the region between Filiatra and the Neda River, the probable northern boundary of the Kingdom. On the assumption that the Neda marked the frontier, Chadwick, in his discussion of the o-ka "coastguard" tablets, assigns Sectors I and II (An 657) to the coast between the Neda and Kyparissia, and Sector III (An 654) to the coast south of Kyparissia (1972, 107-108). The headquarters of the northernmost contingent (Sector I) is at o-wi-tono, which in An 218 (listing individual men), line 5, follows *me-ta-pa* of line 4 (*Docs*², 177–178; cf. Chadwick 1972, 107–108). Since the quotas for pi-*82 (Ma 225) and me-ta-pa (Ma 90) in the Ma assessments are the same, their territories must have been considered to be roughly equal in productivity, so that they would have been probably of about the same size (and each of them about half the size of pe-to-no). The northernmost was probably pi-*82 (Docs², 416). The fact that it was "the home of an unusually large number of sheep and goats" (Chadwick 1972, 108; cf. Sainer 1976, 50-51: 2,742 sheep and 210 goats) strongly suggests that it contained much "marginal" land, good for pasture but less suitable for crops (cf. Lukermann 1972, 161-162: "Nedha Core Area"). Coastguard Sector II is under the command of Nedwatas, and includes 30 Kyparissian ke-ki-de men and two Followers, and 30 men from Oikhalia who are to go to o-wito-no (Docs², 188–189). "This sector clearly represents the coastal end of Kyparissia River valley, another important strategic location" (Chadwick 1976, 176-177). In Sector III, 50 ke-ki-de men of me-ta-pa are deployed (An 654). Chadwick suggests here that this sector would be just south of Kyparissia: Kastro (22), itself presumably a lookout. The Mycenaean settlement here may have been a large "village," although later occupation at the site has obviously destroyed or obscured most of the evidence (see, above, Ch. 2, "8. From Kyparissia to the Neda River").

The most important Mycenaean settlement in the district in LH IIIB was probably that of 22A (Mouriatadha: Elliniko). This site indeed seems to have been occupied only in the LH IIIB period (Bennet 1998a, 128-129). It was ca. 3 ha in size, with a small "megaron," fortifications (Pl. 3B; cf. Hope Simpson and Hagel 2006, 54), and a small tholos tomb (Pl. 3C). Bennet (2002, 18–20) would place Mouriatadha in the FP, on the grounds that it was to the east of Mt. Aigaleon. But, as he admits, the concepts of "beyond" or "this side of" Aigaleon would have been conceived from a viewpoint much farther south, i.e., from the Palace. On a literal interpretation, Mouriatadha would be "beyond" Mt. Aigaleon. But the mountain ends above Kyparissia (Pl. 3A), from which there is an easy road (via Vryses: Palaiophrygas [22C]) around its northern tip to Mouriatadha. Farther north, beyond Kyparissia, eastward connections via the Kyparissia valley are even easier. The Mouriatadha site with its fortifications lay at the northern end of a route whereby invaders could reach the Palace "by the back door," i.e., from behind Aigaleon. The establishment of the Mouriatadha settlement, apparently in LH IIIB, would have been a necessary preliminary step in the expansion of the Kingdom to the north and northeast, as was the annexation of Nichoria in the expansion to the east (into the Pamisos valley). Myrou: Peristeria (22B; Pl. 4A), on the south bank of the Kyparissia River (Peristeri), was in decline after LH IIIA2; it has been suggested that it was replaced as the center here in LH IIIB by Mouriatadha (GAC, 167-168; MG, 134–135, 148; Bennet 1995, 599–600; cf. Bennet 1998a, 129). Mouriatadha is indeed the obvious candidate for the center of the me-ta-pa district. For this center Kyparissia itself seems to be ruled out, since its ke-ki-de men (in Sector II, An 657) are listed separately from the ke-ki-de men of me-ta-pa (in Sector III, An 654). Me-ta-pa had connections with both e-ra-te-re-we and a-te-rewi-ja of the FP (Sainer 1976, 45–46). It probably

included Kyparissia and at least some of the lower part of the Kyparissia valley. One possibility is that the Kyparissia River itself could have served as the boundary between me-ta-pa and pi-*82. The question of the location of the eastern boundary of the HP at this point is discussed more fully below. In the north, the Tetrazi mountain forms a natural eastern limit for pi-*82, but to the south, toward the Soulima valley, there is no distinctive natural feature that could serve as an obvious boundary. For the center of pi-*82, Sidherokastro: Sphakoulia (21E) is suggested. At ca. 2.5 ha, it is the largest of the sites found in the Avlon valley, which contains most of the best arable land in the region. For o-wi-to-no, the headquarters of the northernmost coastguard contingent (Sector I, An 657), the most likely candidate is Phonissa: Aspra Litharia (21C), a small site on the southern side of the Neda and not far from the coast. The following sites are suggested here as included in the district of *pi*-*82: 21C, 21D, 21E, 21F, 23H, and 23E (ca. 2.2 ha). The following are suggested for me-ta-pa: 22, 22A, 22B, 22C, 22D, 22E, 22G, and 22H.

Bennet has proposed that the Mouriatadha site should be identified as re-u-ko-to-ro, the putative capital of the FP (2002, esp. 11-12, 15-16, 20-30). His suggestion is based on the insertions of the name re-u-ko-to-ro and of the word za-wete (meaning "this year"; cf. Docs², 465–466) between lines 1 and 2 of Ma 225, a tablet that records debts "of last year" (pe-ru-si-nu-wa) of pi-*82 (cf. Killen 1984a, esp. 176, 186). These insertions (line 2a) were made by the scribe/administrator while the tablet was still wet. Bennet infers that they imply a link between re-u-ko-to-ro and pi-*82. But the purpose of the insertions is not clear. Since the main content concerns last year's debt of pi-*82, the postscripts, re-u-ko-to-ro and za-we-te, may simply be a reminder of an item or items (not specified, but "of this year" and related to re-u-koto-ro) to be dealt with, or already dealt with, elsewhere. In any case, no significant conclusions can be drawn from these unexplained and anomalous insertions.

For the capital of the FP we should expect a more central position and a site much larger than the ca. 3 ha of the Mouriatadha settlement; and its remote upland situation would be an unlikely choice for the location of the 67+ women known (from several Aa and Ad tablets) to have been at

re-u-ko-to-ro and engaged in the manufacture of clothing, including "the more highly specialized activities in the textile trade" (Killen 1984b, 51–63; Bennet 2002, 11–14; cf. Chadwick 1988, 85–86). On the other hand, the 10 women assigned to me-ta-pa (An 607) were apparently "barley-reapers" (Docs², 166–168, 419–420). The Mouriatadha vicinity would indeed have been more suitable for barley than for wheat. The location of re-u-ko-to-ro is discussed below ("The Further Province").

The fourth fiscal group in the HP, Ib2 [South], consists of three districts, ro-u-so/e-ra-to (clearly marked as the most important), ka-ra-do-ro, and ri-jo. Although in some lists of the HP major districts (Cn 608, On 300, and Vn 20; Table 3) variants of the name e-ra-to occur instead of rou-so (in Jn 829), in most of the tablets concerned the district is named ro-u-so (as in Ma 365) or the equivalent (Sainer 1976, 56). Among the items listed under ro-u-so are: 86 women (Aa 717 and Aa 798), 7+ bronzesmiths (Jn 832), and 1106+ sheep and 446+ goats (Cn 285 and Cn 328). At rou-so a-ko-ro (territory of ro-u-so) the following are recorded: timber products (100 axles and 100 saplings, Vn 10), offerings to gods, and other contributions (S1, V4, V3, Un 47, and Ua 1413). Sainer (1976, 56) describes ro-u-so as "a very important place" (cf. Chadwick 1972, 107, 110), and Killen suggests that it may have been "some kind of sub-capital of the Hither Province" (Killen 1984b, 55-61). He notes especially that the 32 women at ro-u-so in Aa 717 are described as a-ke-ti-ri-ja (i.e., employed in the decoration of cloth), and that the total of the women, 86, is second only to the 377 of pu-ro, the Palace itself (Killen [1984b, 55– 57] lists the women workers of the Kingdom; Bennet 2002, 12-13; cf. Chadwick 1988). Chadwick suggested that since there is a ro-u-so a-ko-ro (territory of ro-u-so), ro-u-so may have been the area in which e-ra-to was the principal town (Chadwick 1972, 102). Since ro-u-so/e-ra-to is listed after a-ke-re-wa in all of the "fixed lists" (Table 3), it must be "south" of, or adjacent to, a-ke-re-wa. The Koukounara area is clearly indicated as the "core" of this district (MG, 147; cf. Bennet 1999, 147). Several Mycenaean sites in this area were partially explored by Marinatos, and some of the tholos tombs here, re-investigated by Korres, remained in use in LH IIIB. Although no particular site has been shown to be sufficiently prominent to

be an obvious choice for the center of ro-u-so, the twin settlements of Koukounara: Katarrachi and Gouvalari (65), on opposite sides of the gorge of the Potami tou Arapi, may have together constituted the center (Bennet 1999, 147). Alternatively, e-ra-to may have been the name of a separate center (in the same district), in which case the site of Stenosia: Palaiochorafa (65A), with its large building and fine LH IIIB pottery, would be a candidate for this e-ra-to. The territory of this district would probably have included all of the known sites in and around Lukermann's "Central Plateau Core Area," between the Pylos district (Lukermann's "Navarino Core Area") and his "Five Rivers Core Area" (Lukermann 1972, 156-165). According to this supposition, the following sites would have been included in ro-u-so/e-ra-to: 65, 65A, 65B, 66, 67, 67A, 68, 68A, 69, and 75B, and probably also 69A, 69B, and 69C.

Both *ka-ra-do-ro* (Ma 346) and *ri-jo* (Ma 193), the other districts in Group Ib2, and the last of the names in the lists of the HP, are marked as coastal (Chadwick 1972, 109-110; 1976, 43, 45-46; Sainer 1976, 41, 55). The main evidence for this is given by An 661, the last tablet in the o-ka series (Docs², 193-194, 432; Chadwick 1976, 175-176), which deals with the Coastguard Sectors IX and X. Since Sector VIII (discussed above) covered the Pylos district and the Navarino bay, and since Sector X includes ti-mi-to-a-ke-e of the FP, it must be deduced that Sector IX must have covered the coastline in between, along the southern part of the Messenian peninsula from modern Pylos to the south, and around Cape Akritas as far north as Petalidhi, thus including the territories of modern Methoni and Koroni. No hostile landing would be expected below the high cliffs between modern Pylos and Methoni, nor in the vicinity of Cape Akritas, which is also "inhospitable and rocky" (Chadwick 1976, 174). Assuming that the coastguard stations in An 661 are listed from the west and around the coast between Methoni and Petalidhi, it seems obvious that *i-wa-so*, where 70 men (by far the largest contingent in An 661) are stationed, would have been at or near Methoni, since from a landing here it would have been easy to advance north to the Navarino bay. Apparently only 10 coastal watchers are stationed at ka-ra-doro (An 611, line 5) and only 20 at za-e-to-ro farther to the east (An 661, line 6). From the base at *ti-mi-to-a-ke-e* (Sector X) 30 men are sent to the Nedon (An 661, line 13, *ne-do-wo-ta-de*).

Chadwick conjectured (1976, 46) that ka-ra-doro may have been a dual form of the Greek "charadros" (ravine), and that the name may here refer to the two conspicuous ravines that meet above Phoinikous, with its important Mycenaean site, Phoinikounta: Hagia Analipsis (73) (at least 2.5 ha in size). This vicinity and the adjacent Methoni area form a suitable geographical unit, Lukermann's "Methoni Core Area" (Lukermann 1972, 157). The high ridge above the coast between Methoni and modern Pylos would have been a suitable station for the 70 men sent to i-wa-so from e-na-po-ro (An 661, line 3), and e-na-po-ro, which is associated with ka-ra-do-ro in Vn 04 ($Docs^2$, 193–194), was probably also in this district. If we may assume that Phoinikounta: Hagia Analipsis (73) was the center for ka-ra-do-ro, the following sites would have been included in the district: 72, 72A, 72B, 72C, 72D, 73, 73A, and 73B. The area has not yet been sufficiently explored, even "extensively."

As in the cases of *ka-ra-do-ro* (ravines?) above, and of e-re-i (marsh?) in the FP, ri-jo (promontory?) is also presumably a word denoting a geographical feature (Chadwick 1976, 41). Strabo (8.4.5-7) mentions a city named Rhion in Messenia as "opposite Tainaron." This would indicate the region of modern Koroni, the site of the historic Asine (Chadwick 1972, 110; Lazenby and Hope Simpson 1972, 85-86, 89-96; MME, 314-315) on a prominent cape. No Mycenaean sherds have yet been found on this acropolis, which must at least have been the site of a lookout. The name ri-jo does not itself occur in the o-ka coastguard tablets, although the district does contribute rowers on at least one occasion (An 610 and An 724; Docs², 186–187, 431–432). The place name za-e-toro is the station listed (An 661, line 6) immediately after ka-ra-do-ro in Sector IX, and men of ko-ruku-ra-i-jo (cf. Na 46, Docs², 297) are assigned to both stations. Za-e-to-ro also provides three rowers on another occasion (An 610, line 12; cf. Sainer 1976, 61). It may be presumed that ri-jo, the last district name in the HP list, must have been between ka-ra-do-ro and ti-mi-to-a-ke-e, whose center is now affirmed as Nichoria (see above). The name ri-jo is therefore clearly marked as the district along the west coast of the Messenian Gulf,

from modern Koroni to Petalidhi (ancient Korone), roughly corresponding to Lukermann's "Koroni Core Area" (Lukermann 1972, 157). None of the Mycenaean sites found in this area are large, but at Charakopeio: Demotic School (74), the spread of LH sherds, including LH IIIB, was at least 1.5 ha, and the tholos tomb at the edge of the site, although mainly destroyed, had contained a bronze cauldron (LH IIIA?) and other bronze objects. This area between Koroni and Longa has the best land in this fertile district (in 1959 the main crops were grapes and olives), and most of the Mycenaean sites found in the district are located here (i.e., nos. 74, 74B, 74C, 75F). A lookout on the Koroni cape was essential, and could easily have been manned from Charakopeio, if this was the center of ri-jo. As in the case of Kyparissia (above), there would have been no need to specify (i.e., in An 661) this obvious and routine disposition. But a further lookout would have been needed to the north, between

Koroni and Sector X, at ti-mi-to-a-ke-e (An 661, lines 9-11), i.e., presumably at Nichoria. Indeed just such a provision appears to have been made in Sector IX, where 20 men of ko-ro-ku-ra-i-ja and the Follower wo-ro-tu-mi-ni-jo are stationed at zae-to-ro (An 661, lines 6–7). The obvious candidate for za-e-to-ro is Vigla: Hagios Ilias (75F) (ca. 1.6 ha). The name Vigla ("lookout") is indeed appropriate, since the site affords a magnificent view of the western coast of the Messenian Gulf, from Petalidhi to Koroni. It may also be significant that the only Follower in Sector IX is assigned to this contingent, since there is a road from Longa to modern Pylos (Sainer 1976, 61). In An 610, line 12, za-e-toro provides three rowers, and this tablet also lists rowers from ri-jo (An 610, line 8) and a-ke-re-wa (An 610, line 7). Assuming that the location of rijo suggested here is essentially correct, the following known sites would have been included in its territory: 74, 74A, 74B, 74C, 75, 75C, 75D, and 75F.

The Further Province

Like the HP, the FP appears also to have been divided into four fiscal groups for the purposes of administration and taxation (Tables 3, 4; Map 6). But, as has been noted (above, "The Origins of the Kingdom"), in the Ma assessments the names of five of the eight districts of the FP are adjectival in form (ending in ti-ja or wi-ja): a-si-ja-ti-ja, ra-ura-ti-ja, a-te-re-wi-ja, za-ma-e-wi-ja, and e-sa-rewi-ja. This suggests that these five names had been invented by the Pylos officials for newly defined districts in the (recently acquired) territory that now formed the FP, and the province was presumably now reorganized in a manner that combined geographical location with fair taxation (cf. Chadwick 1973; Shelmerdine 1973). In the HP they had succeeded by means of fiscal groups comprising existing contiguous larger and smaller districts combined in pairs or triads (in the case of pe-tono consisting of only one district), in such a way that the totals of the assessments for each group were roughly equal. The districts of the FP are shown to have been organized in the same manner, as is seen in the totals in each group, which are only slightly larger than the totals for the HP

groups (which may have been granted a reduction; Shelmerdine 1973, tables I, II).

The quest for the locations of the districts of the FP in some respects resembles the problem faced by the Pylos officials in devising their scheme for managing the taxation of the province, since here also the solutions may appear somewhat artificial. But the archaeological data and the topography provide considerable assistance. As Chadwick says, "[i]f we accept, as I do, that Miss Shelmerdine's grouping of the towns of the Further Province is valid, then it would be incredible if these groups did not correspond to geographical contiguity" (Chadwick 1973, 276). It is now generally agreed that the FP would have included most of eastern Mesenia, including the Kalamata area but probably not all of the rest of the northern Mani to the south of this (cf. Bennet 1999, fig. 61). The main part would have been the Pamisos valley, consisting of Lukermann's "Pamisos Core Area" in the south and his "Steniklaros Core Area" in the north (Lukermann 1972, 161–163, fig. 9-3). The other major components would have been the Soulima valley in the northwest and Lukermann's

"Five Rivers Core Area" in the southwest (Lukermann 1972, 159-160). The Soulima valley is divided from the Kyparissia River valley only by the low watershed at Kopanaki (Map 4). There is no clear indication as to exactly where a division between the HP and FP would be expected here, although the known Mycenaean sites in the vicinities of Kopanaki and Kamari seem to form a group separate from those in the lower part of the Kyparissia River valley. Similarly, there is no distinct natural division between the Longa area (suggested above as the northern part of the territory of ri-jo) and the Rizomylo area, where Nichoria is, in all probability, now established as the center of ti-mi-to-a-ke-e, the first FP name listed in Jn 829 (Table 3).

Shelmerdine has assembled, in several publications, the detailed evidence for the identification of Nichoria as ti-mi-to-a-ke-e (Ma 123), the first name in Group IIb1 [SW] of the FP (Table 4; cf. Shelmerdine 1973). The main arguments (set out in Shelmerdine 1981 and 1992) clearly show "a remarkably close match" (Shelmerdine 1998c, 142) here between the evidence of the tablets and that from the Nichoria excavations. In particular, in the bronze-working establishment at Nichoria (Unit III-4; see Aschenbrenner et al. 1992, 395–398; Catling and Hughes-Brock 1992, 619–624), of the same date as the Pylos tablets, most of the work "involved not alloying of tin and copper, but the remelting and reworking of bronze." This is compared with the records of smiths at ti-mi-to-a-ke-e (Ma 123.3) and of the amounts of bronze they are to process (Jn 829.13; Table 3; cf. Bennet 1998a, 118, fig. 39). "The Jn records show that bronze was allocated in lump form by the palace, and worked by smiths at various places around the Kingdom" (Shelmerdine 1981, 323). The "Five Rivers Core Area" as defined by Lukermann (1972, 158–160), centered on Rizomylo/Nichoria, is one of the bestwatered areas of Messenia, with very rich soil, and therefore well suited to the growing and retting of flax. The flax assessment for ti-mi-to-a-ke-e (50 units, Na 361) is only surpassed by that of five other places, at least three of which are in the HP, where most of the flax in the Kingdom was grown (Shelmerdine 1981, 324–325, esp. n. 26; cf. *Docs*², 295, 468-473; Robkin 1979).

The only FP district name listed in the *o-ka* tablets is *ti-mi-to-a-ke-e*. It appears to have been

the headquarters for the surveillance of the northern coast of the Messenian Gulf, from Petalidhi to Kalamata. Thirty men from ti-mi-to-a-ke-e are to be sent "toward the Nedon" (ne-do-wo-ta-de, An 661, line 13), presumed to be the river Nedon at Kalamata (Chadwick 1972, 110-111; cf. Chadwick 1976, 47–48). Nichoria also apparently had a small harbor (see, above, Ch. 2: 12. Petalidhi, Rizomylo and the "Five Rivers" District). Although the Nichoria hill itself would not have been the best location here for coastal surveillance (pace Shelmerdine 1998c, 143), the site was in the most strategic position in the area, dominating the road from western to eastern Messenia, the main route between the HP and FP. On the presumption that Nichoria (76) was its center, the district of *ti-mi-to*a-ke-e would probably have included also sites 71, 75A, 75E, 76A, 76B, 76D, 76F, and 76K.

The natural boundary between the districts of Group IIb1 [SW] and the one district, ra-u-ra-tija (Ma 216), of Group IIa1 [SE] would have been the Pamisos River (Chadwick 1973; Shelmerdine 1973). Since ti-mi-to-a-ke-e (Nichoria) was to the west of the Pamisos, it follows that the two other districts in Group IIb1, sa-ma-ra (Ma 378) and a-si-ja-ti-ja (Ma 397) were also to the west of the Pamisos. The only other indication of their relative locations may perhaps be deduced from the order of the sequence of the FP district names in Jn 829 (contributions of bronze, discussed above; Table 3). The HP district names in Jn 829 and several other tablets follow the same logical order, roughly from north to south, as outlined above. But for the FP, the order of the names within each fiscal group (as deduced from the Ma assessments; cf. Shelmerdine 1973) differs in some cases from their order in Jn 829 (Tables 3, 4; cf. Bennet 1999, 155, fig. 3). In Jn 829, after ti-mi-to-a-ke-e (IIb1) in the southwest comes ra-u-ra-ti-ja (IIa1) in the southeast (and to the east of the Pamisos?), after which the order returns to sa-ma-ra and a-si-ja-ti-ja in the southwest (IIb1). Next comes e-ra-te-re-we in the northwest (IIb2) and then za-ma-e-wi-ja in the northeast (IIa2), and finally e-re-i (for which, see below). If their order in Jn 829 was in fact that of an actual itinerary (of an annual tour of inspection and/or collection of reworked bronze; cf. Docs², 357-358, 511-514), there may be simple and plausible explanations for these apparent anomalies.

The status of re-u-ko-to-ro (Leuktron?) in the FP has been characterized as in some ways parallel to that of pu-ro in the HP (Bennet 1998a, 122– 123; cf. Docs², 418). At least 67, and possibly as many as 83, women (slaves?) were employed at re-u-ko-to-ro in the textile industry, as recorded in the Aa and Ad tablets (*Docs*², 155–162, 418–419; Chadwick 1988, 85-86; Bennet 2002, 12-14). Although far less than the minimum of 377 women workers listed at pu-ro, and less than those at ro-u-so, this is a large number and indicates that re-u-ko-to-ro was a site of considerable size and importance. By far the most significant Mycenaean settlement in eastern Messenia was Aithaia: Ellenika (78) (Pl. 6A), with a sherd spread of at least 6 ha, 24 chamber tombs (with mainly LH IIIA2 and LH IIIB pottery) and a fine tholos tomb (Pl. 7A). The evidence, discussed earlier (Ch. 2, "13. The Pamisos Valley [South]"), shows that this settlement was of the size and importance required for the capital of the FP, i.e., re-u-ko-to-ro (as first proposed in MG, 149 [cf. 129–130, 145], and adopted by Bennet 1998a, 124-125; although Bennet 2002, 26, contra).

Second in importance after *re-u-ko-to-ro* in the FP may have been pu-ro ra-u-ra-ti-jo, where 26 women were employed (Aa 61; cf. Sainer 1976, 52, 54). This place cannot have been also named re-uko-to-ro (as is noted by Bennet 2002, 26, correcting Bennet 1998a, 124–125). This pu-ro seems to have been synonymous with ra-u-ra-ti-ja, and it is clearly differentiated from pu-ro, the Palace and capital of the Kingdom, by the adjective ra-u-rati-jo. It has been shown that pu-ro, the capital, although apparently situated within pa-ki-ja-ne, was not administered under pa-ki-ja-ne. Likewise, reu-ko-to-ro, if located at Ellinika, may have been within the territory of ra-u-ra-ti-ja, but was obviously not its chief town. And, like pu-ro, the capital of the Kindgom, re-u-ko-to-ro, as the administrative center of the FP, would also have been exempt from taxation. For the location of ra-u-rati-ja, a major consideration is the amount of its Ma assessment. As in the case of pe-to-no, the sole district of Group Ia2 of the HP, ra-u-ra-ti-ja is likewise the sole district of Group IIa1 of the FP. Yet in both cases their Ma assessments are roughly equal to those for each of the other fiscal groups in their respective provinces, although these other groups all consist of either two or three districts. It follows

that, like *pe-to-no* (above), *ra-u-ra-ti-ja* must have been both a large and relatively productive district. It is therefore probable that this southeastern fiscal Group IIa1 included most of the regions that later became the territory of the historic towns of Thouria and Pherai (Lazenby and Hope Simpson 1972, 81–99). If so, it would have comprised the fertile strip between the Pamisos River and Mt. Taygetos, at least as far north as Pidhima (78B), and the Kalamata region, perhaps as far south as the Sandava gorge (the ancient Choireios River, which was recognized as the border between Mesenia and Laconia after A.D. 78; see Lazenby and Hope Simpson 1972, 99 n. 129), but probably not including the Kambos plain (on Map 1 the Sandava River is shown between sites 80A and 81 [Kambos: Zarnata]; cf. Map 6).

If Aithaia: Ellinika (78) is to be identified as reu-ko-to-ro, the only viable candidate for the center of ra-u-ra-ti-ja (alias pu-ro ra-u-ra-ti-jo) would be Kalamata: Kastro (79) (ancient Pherai) with Kalamata: Tourles (79A) (Pl. 6B). Although the evidence (reviewed in Ch. 2, "14. The Northern Mani") for the size of the Mycenaean settlement at Kalamata has been mainly destroyed by later construction and destruction, it seems clear that, like Kyparissia: Kastro (22) above, it was quite large. The historic Pherai had a harbor (Strabo 8.4.5), presumably at or near the mouth of the Nedon, where a "cothon" harbor (flushed periodically by water from the Nedon) would have been possible. The configuration of the Nedon River channel between two hills, the Kastro and the lower ridge opposite (in the foreground of Pl. 6B), could have suggested the name pu-ro (pylos), a "gate" to and from the sea, corresponding to the Pylos "gate" to the sea from the Bay of Navarino (as discussed above, "The Hither Province"). It would, of course, have been necessary to distinguish this FP pu-ro from the HP pu-ro (Pylos the capital) by the addition of the qualifying adjective ra-u-ra-ti-jo. The territory of ra-u-ra-ti-ja (of which pu-ro ra*u-ra-ti-jo* was presumably the capital), as proposed here, would have included sites 78 (Ellinika), 78A, 78B (Pidhima), 77E, 79, and 79A (Kalamata), 79B, 79C, and 79D. It is probable that more Mycenaean sites will be found within this territory, as Lukermann surmised in MME (1972, 161: "Pamisos Core Area").

The districts in Group IIb1 are listed in On 300 consecutively as te-mi-ti-ja, sa-ma-[ra], and a-si*ja-ti-ja*, and in Jn 829 *a-si-ja-ti-ja* also follows *sa*]ma-ra consecutively (Table 3). It is therefore likely that ti-mi-to-a-ke-e was contiguous with sa-ma-ra, and sa-ma-ra with a-si-ja-ja-ti-ja. Since sa-ma-ra follows ra-u-ra-ti-ja (in this case ra]-wa-ra-ta,) in Jn 829, it is likely that these two districts were adjacent. So it is reasonable to conclude that sama-ra would have consisted of the sites along the western side of the lower Pamisos plain, a fertile strip corresponding to the strip along the eastern side of the plain (assigned above to ra-u-ra-ti-ja). These two strips, together with the Nichoria area, were identified as the best Bronze Age crop land in Messenia by Van Wersch (1972, 182–184, pocket map 11-21). The center of the lower Pamisos valley here was probably not cultivated, since the drainage was poor and the alluvium difficult to plow. It would, however, have been good grazing land for cattle and horses (Van Wersch 1972, 182-184, pocket map 10-19). Most of the known Mycenaean sites here assigned (provisionally) to sa-ma-ra are on the western edge of the plain, sites 77, 77A, 77B, 77C, and 77F, although 76E (Madhena) may also be included. (In MME, Lukermann [1972, 160] notes an apparent lack of BA and Classical-Hellenistic sites farther west, in the eastern part of his "Five Rivers Core Area," but this region has not yet been sufficiently explored.) The most likely center for sa-ma-ra seems to be Karteroli: Hagios Konstandinos (77). The extent of the Mycenaean settlement here is not clear due to later cultivation, but Mycenaean surface sherds, including LH IIIB, were found over an area of at least 1.5 ha, in addition to at least nine chamber tombs (all robbed), some of which were similar in size and shape to those of Aithaia: Ellinika (78).

The last district in Group IIb1 [SW], *a-si-ja-ti-ja*, is listed in Jn 829 between *sa-ma-ra* and *e-ra-te-re-wa-pi* (*e-ra-te-re-we*), the first district in Group IIb2 [NW]. Large numbers of sheep are located at *a-si-ja-ti-ja* (Cn 254), and in Cn 4 it heads a list recording a deficit of 92 sheep (ovis + TA; cf. Sainer 1976, 24, 34). Sainer says here, "the evidence of Jn 829 and of the Ma series indicates that *a-si-ja-ti-ja* lies to the south of *e-ra-te-re-wa-pi*." Certainly these links with the HP support a western or northwestern location for *a-si-ja-ti-ja* within Group IIb1. For its territory the higher northern

terrain of the "Five Rivers Core Area" is indicated, where Mycenaean tombs have been discovered recently by the Greek Archaeological Service at sites 76J (Aristomenis) and 76H (Manesi). And the settlements at 35B (Manganiako), ca. 2.6 ha, and at 35A (Koutsoveri), ca. 1.5 ha, are also significant (see above). The district has not yet been adequately explored, but the following known sites may have been included in the territory of *a-si-ja-ti-ja*: 35, 35A, 35B, 76G, 76H, and 76J, and possibly also 34, 36, and 36A.

The next district listed in Jn 829, e-ra-te-rewe (Ma 333), is the largest of the two districts of Group IIb2 [NW]. Its Ma assessment comprised about two-thirds of the total for this group, and it also is marked as a center for sheep. In Cn 395.1 it heads a list recording a deficit of 31+ sheep (ovis + TA; cf. Sainer 1976, 24, 38), and is there associated with me-ta-pa of the HP (Cn 595.2, cf. Sainer 1976, 45). The other name in Group IIb2, a-te-rewi-ja (Ma 335), is one of those in adjectival form, which suggests that it was invented by the Pylos bureaucracy and that this district may be the product of an artificial subdivision. It has connections with me-ta-pa of the HP (Aa 779), and on An 830 it appears with e-sa-re-wi-ja and ra-wa-ra-ti-ja of the FP and with pi-*82 of the HP ($Docs^2$, 178–179, 424, 464; Shelmerdine 1973, 263). It is reasonable to conclude that the territory of Group IIb2 [NW] included all or most of the Soulima valley (Map 4). As Lukermann observes in MME (1972, 162), this "Soulima Valley Core Area" was rich agriculturally, but "its politico-economic status in the wider regional scheme was probably as circumscribed as the mountains which physically surround it." Nevertheless, it lay on the main route from the western coast at Kyparissia to the upper Pamisos valley, and was accordingly of strategic importance. The area was relatively well searched by UMME (although with only "extensive" coverage), with the exception of the northern branch of the valley in the neighborhoods of Psari and Chrysochori, where the Greek Archaeological Service has subsequently investigated sites 24D, 24E, and 25A (farther to the north, at Chalkias).

The most important site in the Soulima valley in LH IIIB was Malthi: Gouves (27A), where Valmin excavated part of a LH IIIB settlement, estimated to be ca. 3 ha in extent, and two LH IIIB tholos tombs (see, above, Ch. 2: 16. The Soulima

Valley). Although the settlement was only partly excavated, and the finds were not impressive, the two LH IIIB tholos tombs attest the importance of the site, which also lies at the hub of communications in the Soulima valley. It seems marked as probably the center of the district of *e-ra-te-re-we*. The district may have at one time included all of the Soulima valley area (Map 4; Lukermann 1972, fig. 9-3), itself originally comprising the whole of Group IIb2. In this case, a reason would be needed to explain why the Pylos bureaucracy would choose to create a subdivision, namely a-te-rewi-ja. Although the Malthi sites, 27 and 27A, lie conveniently on the route from Kyparissia to the Pamisos valley, the location is not ideal for controlling the whole of the Soulima valley. In particular, a group of sites to the west of Kopanaki, in the upper part of the Kyparissia valley, are over 6 km distant, although laying close to the main east to west route, and it would have made sense to have a separate administrative center for these. It is tentatively suggested here, therefore, that we might provisionally assign the following sites to the (smaller) district of a-te-re-wi-ja: 23, 23A, 23B, 23C, 23D, 23F, 24, and 24B. Among these, no particular site has been shown to be particularly outstanding, but the tholos tombs excavated by Valmin at site 23 (Ano Kopanaki: Akourthi) suggest a center nearby, perhaps between here and Kamari: Gouva (23D), where there appears to have been a tholos tomb, and where surface sherds were found over a small area (ca. 1.2 ha). The site is close to the main east to west route. According to this division of Group IIb2, the rest of the known Mycenaean sites in the Soulima valley would be assumed to have been included in the (larger) district of e-ra-te-re-we. These are: sites 24A, 24C, 24D, 24E, 25, 26, 26A, 26B, 27, 27A, 27B, 28, 28A, 28D, 28E, and 28F.

In Jn 829 *za-ma-e-wi-ja* comes immediately after *e-ra-te-re-we*, and there is no mention of *a-te-re-wi-ja*. The last name in Jn 829, after *za-ma-e-wi-ja*, is *e-re-i* (Table 3). The proposition (Shelmerdine 1973), that Group IIa2 [NE] consisted of *za-ma-e-wi-ja* and *e-sa-re-wi-ja* is corroborated by the juxtaposition of these two names in Vn 493, line 3, as *e-sa-re-wi-ja*, *za-ma-e-wi-ja-qe* (see note on Table 3). As Chadwick observes (1973, 278), "[s]ince the Ma list omits *E-re-i*, but includes *E-sa-re-wi-ja* in a2, it is a reasonable guess

to suppose that these two names overlap, and to place them in the NE quarter." The Ma assessment for e-sa-re-wi-ja (Ma 330) is about three-fifths of the total for Group IIa2, and the assessment for zama-e-wi-ja (Ma 393) about two fifths. In On 300, line 9, e-sa-re-wi-ja is listed directly after ra-ura-ti-ja, and the names za-ma-e-wi-ja and a-te-rewi-ja are apparently not included (i.e., they are not among the district names listed under the heading pe-ra-a-ko-ra-i-jo of line 8). No conclusion can be drawn from these apparent "omissions," however, nor can any conclusions be drawn from the apparent "omission" of the name a-te-re-wi-ja in Jn 829 (pace Bennet 2002, 24–25). There may have been a simple reason for its absence there; perhaps this district had no bronze to contribute, or was given an exemption.

The evidence as a whole tends to support the suggestion that both the name e-re-i (the original name?) and the name e-sa-re-wi-ja (newer and artificial?) may have been applied to the same district, as has been supposed in the case of the names ro-u-so and e-ra-to in the HP. The name e-re-i (locative of e-ro, "marsh"?) seems appropriate for the extensive marsh below the springs at Hagios Floros (78C), the main source of the Pamisos River (there is no such marsh in the Kyparissia River valley; pace Bennet 2002, 25, 30). This marsh would always have been a significant feature. Chadwick conjectured that the feature he called "the Skala ridge" (Chadwick 1973) formed the boundary between the southern (IIb1 and IIa1) and northern (IIb2 and IIa2) fiscal groups of the FP. But the range of low hills which constitute this "ridge" are aligned north to south rather than east to west, and do not extend for the whole width of the valley. There are easy and low-lying routes both to the west of them (along the Mavrozoumenos River) and to the east of them (the main road from Kalamata to the north). The Hagios Floros springs and marsh would have been a far more significant landmark for defining a boundary. Except for 78C and 78D at Hagios Floros itself, the Mycenaean sites found to the north form two separate clusters, the larger in and around the hills between the upper and lower Pamisos plains, and the smaller on the northern and northwestern edges of the upper plain (Map 5). In the sequence (of an itinerary?) followed in Jn 829, zama-e-wi-ja comes next after e-ra-te-re-wa-pi. It

Hither Province					
la1 [North]	pi-*82: center Sidherokastro: Sphakoulia (21E), with 21C, 21D, 21F, 23H, and 23E.				
	me-ta-pa: center Mouriatadha: Elliniko (22A), with 22, 22B, 22C, 22D, 22E, 22G, and 22H.				
la2 [West]	pe-to-no: center Filiatra: Hagios Christophoros (22L), with 22F, 22J, 22K, 22M, 22N, 22P, 37 (PRAP K1), 37A, 37B, 37C (PRAP K2), M3 (PRAP), 38 (PRAP D1), and D2 (PRAP).				
lb1 [Central]	pa-ki-ja-ne: center Chora: Volimidhia (41), with 40, 41A, 42A, 42B, 45, 46, 55, 56, 57, G3 (PRAP), and I4 (PRAP).				
	a - pu_2 - we : center Iklaina: Traganes (52; IKAP site T), with 48, M (IKAP), 49, 50A, 51A, 53, 54, I (IKAP), and K (IKAP).				
	<i>a-ke-re-wa</i> : center Yialova: Palaiochori (58), with 58A, 58B, 58C, 59A, 59D, 59E, 60, 61, 63, 64, 66A, and 72E.				
lb2 [South]	ro-u-so/e-ra-to: center Koukounara: Katarrachi and Gouvalari (65), with 65A, 65B, 66, 67, 67A, 68, 68A, 69, and 75B, and probably 69A, 69B, and 69C.				
	<i>ka-ra-do-ro</i> : center Phoinikounta: Hagia Analipsis (73), with 72, 72A, 72B, 72C, 72D, 73A, and 73B.				
	ri-jo: center Charakopeio: Demotic school (74), with 74A, 74B, 74C, 75, 75C, 75D, and 75F.				
Further Province					
Provincial capital at re-u-ko-to-ro	Aithaia: Ellinika (78)				
lla1 [SE]	ra-u-ra-ti-ja: center Kalamata: Kastro and Tourles (79), with 78, 78A, 78B, 77E, 79B, 79C, and 79D.				
Ila2 [NE]	za-ma-e-wi-ja: center Dhiavolitsi: Loutses(?) (31C), with 30, 31, 31A, 31B, and 29.				
	e-sa-re-wi-ja: center Kalyvia: Pano Chorio(?) (33A), with 78C, 78D, 32, 32A, 32B, 32C, 32D, 28C, and 28B(?)				
IIb1 [SW]	<i>ti-mi-to-a-ke-e</i> : center Rizomylo: Nichoria (76), with 71, 75A, 75E, 76A, 76B, 76D, 76F, and 76K.				
	sa-ma-ra: center Karteroli: Hagios Konstandinos (77), with 77A, 77B, 77C, 77F, and 76E.				
	a-si-ja-ti-ja: center Manganiako: Paliambela(?) (35B), with 35, 35A, 76G, 76H, and 76J, and possibly 34, 36, and 36A.				
IIb2 [NW]	<i>e-ra-te-re-we</i> : center Malthi: Gouves (27A), with 24A, 24C, 24D, 24E, 25, 25A, 26, 26A, 26B, 27, 27B, 28, 28D, 28E, and 28F.				
	a-te-re-wi-ja: center Kamari: Gouva(?) (23D), with 23, 23A, 23B, 23C, 23F, 24, and 24B.				

Table 5. Suggested locations of the districts and fiscal groups of the Kingdom of Pylos, as outlined in this chapter (with Maps 1–6)

would therefore be more logical to suppose that the smaller northern cluster, consisting of sites 30, 31, 31A, 31B, and 31C (Map 5), with site 29, would have been included in the (smaller) district *za-ma-e-wi-ja*, and that the (larger) district *e-re-i/e-sa-re-wi-ja*, the last district named (as *e-re-i*), would have included the sites in the larger cluster to the south (i.e., 78C, 78D, 32, 32A, 32B, 32C,

32D, 28C, and 33A [and 28B (Konchilion)?]). For the centers of these districts of Group IIa2 (according to this reconstruction) there are no obviously prominent candidates. The Mycenaean sherd spread at site Kato Melpia: Krebeni (31) was up to 4.5 ha, but this large extent may be partly due to the later activity at the site, which is also rather remote. Perhaps a better location for the center of

za-ma-e-wi-ja would be Dhiavolitsi: Loutses (31C) (1.0 ha minimum), near which a LH IIIB chamber tomb was found. For the center of e-re-i/e-sa-re-wi-ja, Hagios Floros: Kamaria (78D) (ca. 1.5 ha)

is a possibility, but Kalyvia: Pano Chorio (33A) (ca. 2.2 ha), with a LH IIIB tomb nearby, seems more likely.

The Supervision of the Provinces

As in the case of the HP, it is to be assumed that there would have been an annual inspection of the FP by the designated Pylos officials, if only to check on the work of the local district supervisors (the ko-re-te or "governor" and the po-roko-re-te or "deputy governor"). If the locations proposed above (Table 5; Map 6) for the district names of the FP are accepted in general, we may attempt to reconstruct the itinerary of the inspector(s), as indicated by the order of the district names in Jn 829 (Table 3). The contingent of 30 men sent ne-do-wo-ta-de (i.e., toward the Nedon, at Kalamata) from ti-mi-to-a-ke-e (Rizomylo: Nichoria [76], Group IIb1) would have travelled by sea (themselves rowing?), in order to avoid the swamps at the southern end of the Pamisos valley. For the same reason, the inspector(s), according to the itinerary indicated by the order of the names in Jn 829, would also have travelled by sea from ti-mi-to-a-ke-e (Nichoria) to pu-ro ra-u-rati-jo (Kalamata: Kastro and Tourles [79], Group

IIa1). From there the next destination, sa-ma-ra (of Group IIb1) could easily be reached by the (then) southernmost ford across the Pamisos (see, above, Ch. 2, "13. The Pamisos Valley [South]"; Messenia III, 158; Lukermann 1972, 160) to Karteroli: Hagios Konstandinos (77) (the center of sa-ma-ra?) from Aris: Mesovouni (77E). From sa-ma-ra the inspector(s) would proceed to a-sija-ti-ja (Manganiako: Paliambela [35B]?, also of Group IIb1) and thence to e-ra-te-re-we (Malthi: Gouves [27A], Group IIb2, in the Soulima valley). Next after this in Jn 829 is za-ma-e-wi-ja of Group IIa2, provisionally placed in the Stenyklaros (adjoining the Soulima valley) and including Dhiavolitsi: Loutses (31C) and Kato Melpia: Krebeni (31). After visiting e-re-i (alias e-sa-re-wi-ja?), the last district named in Jn 829 (Group IIa2, including Kalyvia: Pano Chorio [33A] and Hagios Floros: Kamaria [78D]), the officials(s) would return, presumably via re-u-ko-to-ro and ti-mi-to-a-ke-e, to pu-ro.

Summary

For the hypothetical reconstruction proposed here of the locations of the districts in the Kingdom (Table 5), it has been inferred that the rulers of Pylos had organized the fiscal units in a simple and roughly equitable manner, partly according to existing territorial divisions and partly on the basis of natural geographical regions. For the locations of the Hither Province districts and district centers, the indications are obviously more reliable than for some in the Further Province. More of the Linear B tablets relate to the Hither Province, where the proposed identifications receive greater overall support, both from the relatively more

numerous archaeological discoveries in western Messenia and also, in particular, from the evidence of the *o-ka* tablets. The locations proposed for some of the districts and district centers of the Further Province are less firmly supported. The archaeological evidence strongly suggests that the Further Province consisted of territories more recently acquired, so that it would have been necessary for the rulers of Pylos to devise new fiscal units for this province. This would have involved adapting the old territorial districts and/or composing new districts, by a process at least partly artificial.

Epilogue

The scheme proposed above has been enabled by the work of many scholars, and it incorporates a selection of their contributions. It is an attempt to provide a consistent and coherent hypothesis for the locations of, and the components of, the districts in the Kingdom of Pylos. As is admitted above, in some cases there are at present no obvious candidates for some particular district centers, especially in the FP. Although many Mycenaean sites in Messenia have been investigated by excavation and/or survey, many areas have not yet been explored. There will undoubtedly be some major future discoveries and surprises, which may necessitate modification of this hypothetical reconstruction.

Postscript

The recent discovery, in the 2010 excavations at Iklaina: Traganes (52), of a Linear B inscription, apparently in a LH IIIA context, naturally raises new questions concerning the development of

the Kingdom. At present we have only a preliminary report (Cosmopoulos 2010) of this remarkable find.

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Abbreviations for periodicals and series follow the conventions published in the *American Journal of Archaeology* 111 (2007), pp. 14–34.

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Index of Sites and Geographical Features

This index is selective. It contains all the Mycenaean sites in Messenia listed in the Register (Table 2). It does not, however, include all the names of districts, towns, villages, ancient sites, and geographical features mentioned in the text or shown on the maps. Each entry starts with the modern town or village name followed by the Mycenaean site name and site number in parentheses.

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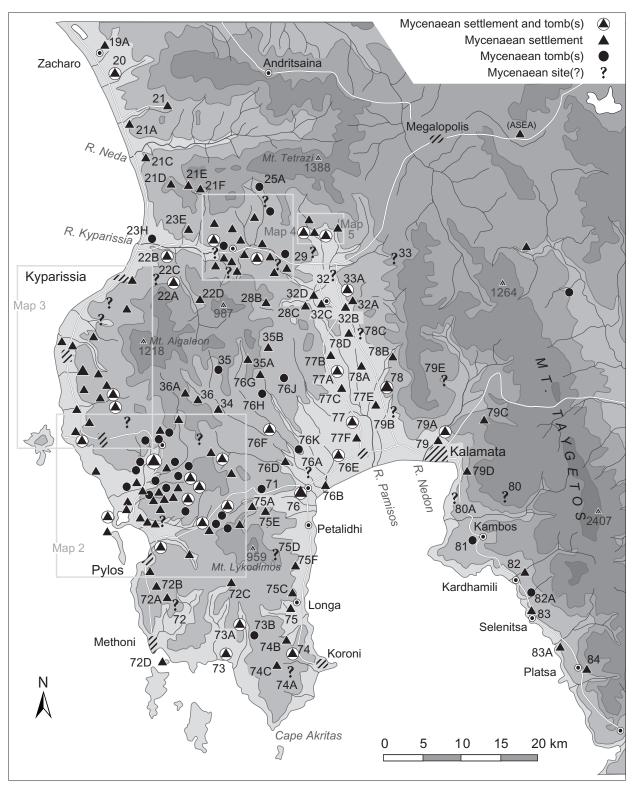
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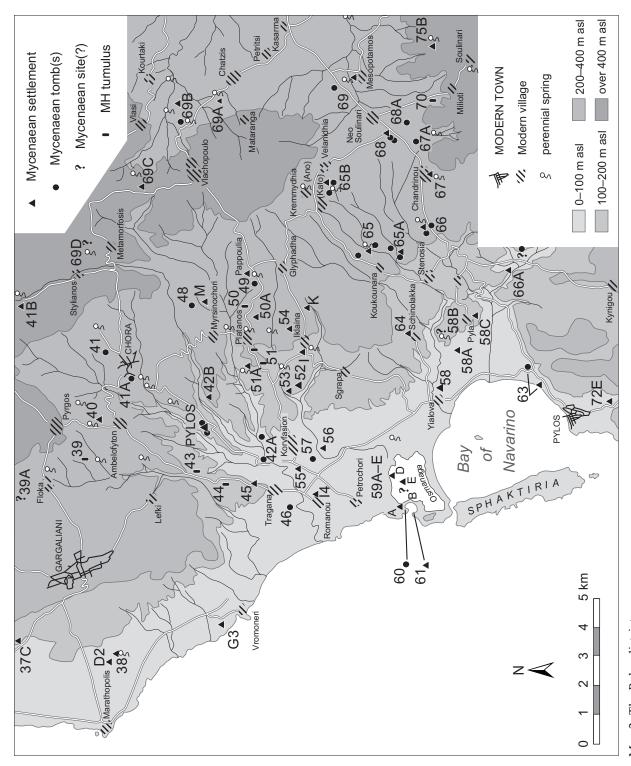
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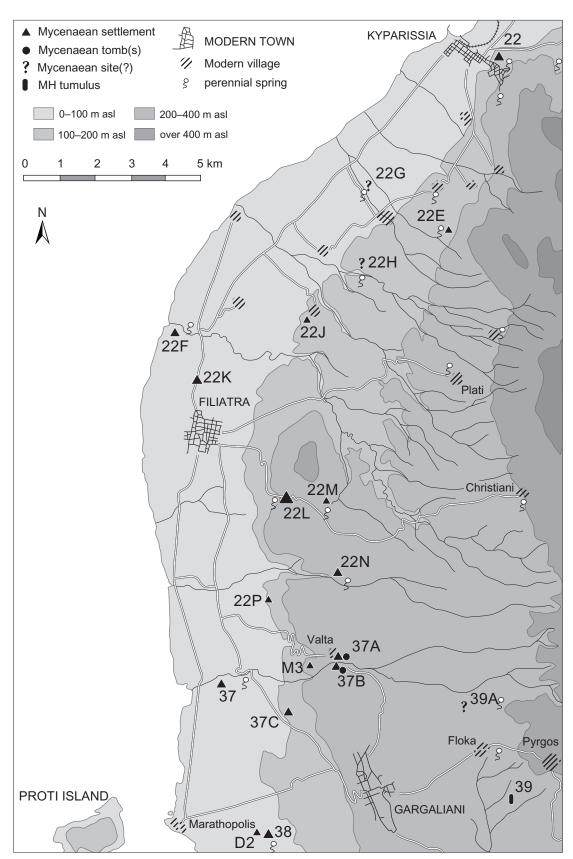




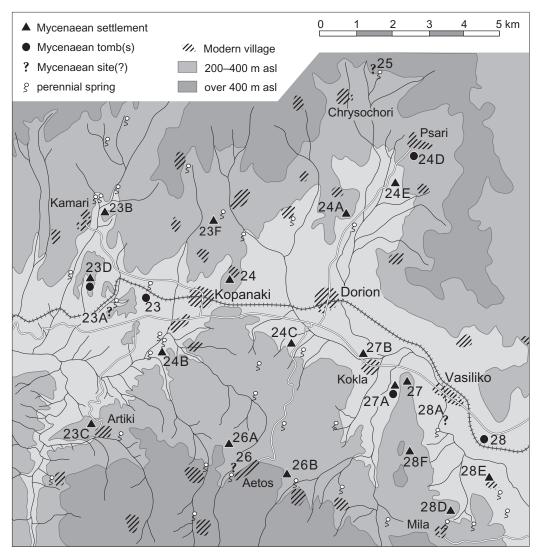
Map 1. Mycenaean sites in Messenia.



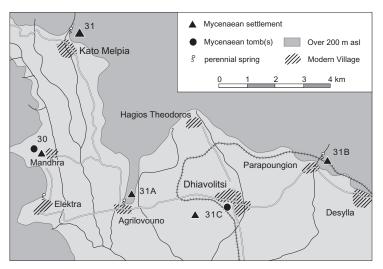
Map 2. The Pylos district.



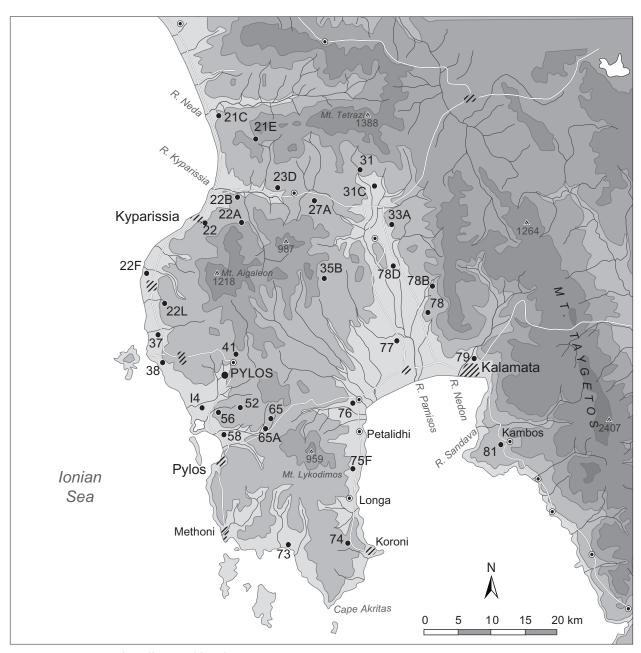
Map 3. Kyparissia to Gargaliani.



Map 4. The Soulima valley



Map 5. The northern end of the Pamisos valley (sketch map).



Map 6. Mycenaean sites discussed in Chapter 3.

MYCENAEAN SITE	SUGGESTED ID	MYCENAEAN SITE	SUGGESTED ID
21C. Phonissa: Aspra Litharia	o-wi-to-no(?)	73. Phoinikounta: Hagia Analipsis	ka-ra-do-ro(?)
21E. Sidherokastro: Sphakoulia	pi-*82(?)	74. Charakopeio: Demotic School	ri-jo(?)
22. Kyparissia: Kastro		75F. Vigla: Hagios Ilias	za-e-to-ro(?)
22A. Mouriatadha: Elliniko	me-ta-pa(?)	76. Rizomylo: Nichoria	ti-mi-to-a-ke-e(?)
22B. Myrou: Peristeria		77. Karteroli: Hagios Konstandinos	sa-ma-ra(?)
22L. Filiatra: Hagios Christophoros	pe-to-no(?)	35B. Manganiako: Paliambela	a-si-ja-ti-ja(?)
22F. Filiatra: Stomion		78. Aithaia: Ellinika	re-u-ko-to-ro(?)
37. Gargaliani: Ordines		78B. Pidhima: Hagios Ioannis	
38. Gargaliani: Kanalos		79. Kalamata: Kastro and Tourles	pu-ro ra-u-ra-ti-jo(?)
41. Chora: Volimidhia	pa-ki-ja-ne(?)	81. Kambos: Zarnata	
I4. Romanou	ro-o-wa(?)	27A. Malthi: Gouves	e-ra-te-re-we(?)
52. Iklaina: Traganes	a - pu_2 - $we(?)$	23D. Kamari: Gouva	a-te-re-wi-ja(?)
56. Koryfasion: Beylerbey		31C. Dhiavolitsi: Loutses	za-ma-e-wi-ja(?)
58. Yialova: Palaiochori	a-ke-re-wa(?)	31. Kato Melpia: Krebeni	
65. Koukounara: Katarrachi, etc.	ro-u-so/e-ra-to(?)	33A. Kalyvia: Pano Chorio	e-sa-re-wi-ja(?)
65A. Stenosia: Palaiochorafa		78D. Hagios Floros: Kamaria	

Plates



Plate 1A. The Voïdhokoilia bay and Osmanaga lagoon, looking northeast from Palaiokastro.



Plate 1B. Yialova: Palaiochori (left foreground) from the east; Sphaktiria and Palaiokastro in the distance.



Plate 2A. Filiatra: Hagios Christophoros from the northwest.



Plate 2B. Filiatra, looking northwest from Hagios Christophoros.



Plate 3A. Kyparissia from the northeast.

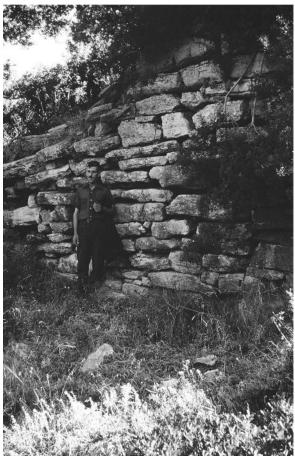


Plate 3B. Mouriatadha: Elliniko, fortification walls on the southern side.

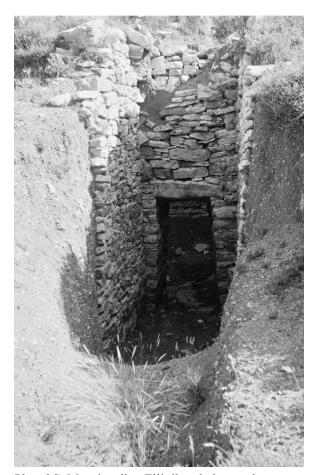


Plate 3C. Mouriatadha: Elliniko, tholos tomb.

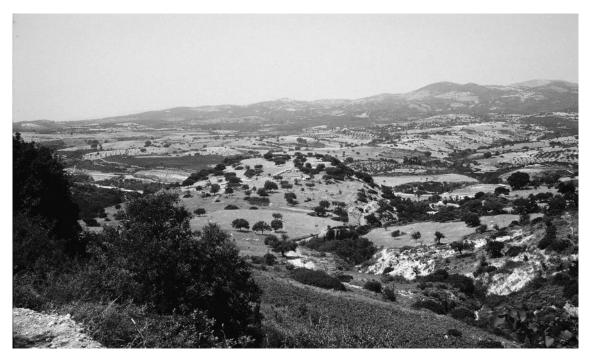


Plate 4A. Myrou: Peristeria, from the south.



Plate 4B. Kato Melpia from the south.



Plate 5A. "Malthi-Dorion" from the east.



Plate 5B. Malthi: Gouves, interior of Tholos Tomb 1.



Plate 6A. Aithaia: Ellinika, southern ridge from the south.



Plate 6B. Kalamata: Tourles (the hill on the left) and Kastro (the hill on the right) from the northwest.



Plate 7A. Aithaia: Ellinika, stomion of tholos tomb.

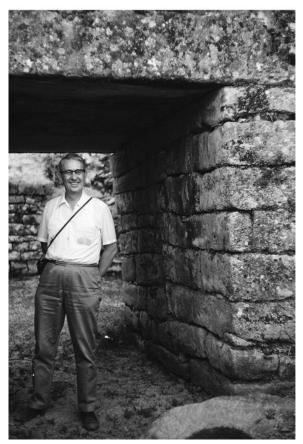


Plate 7B. Kambos: stomion of tholos tomb, with John Chadwick.

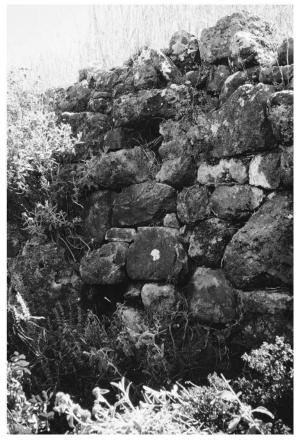


Plate 7C. Kardhamili: Kastro, wall on the northwest.